



June 3, 2013

Dale Rundquist
Compliance Project Manager
California Energy Commission
Siting, Transmission, & Environmental Protection (STEP) Division
1516 Ninth Street, MS-2000
Sacramento, CA 95814-5512

Dear Mr. Rundquist:

A request for an amendment to the Conditions of Certification for SEGS VIII Harper Lake (88-AFC-1) and SEGS IX Harper Lake (89-AFC-1) located at 43880 Harper Lake Road, Hinkley, CA 92347 follows.

1. **Conditions of Certification affected by the proposed change:** The SEGS VIII Harper Lake and SEGS IX Harper Lake facilities operate under Conditions of Certification from the California Energy Commission (CEC). This submittal is intended to support the CEC's review and approval of the proposed modification and CEC's determination of whether any changes to our Conditions of Certification are necessary.
2. **Description of the proposed modification:** NextEra Energy is proposing to construct a foundation and building to be used as a combined employee break room and training/conference facility. The foundation and building will be 40' by 40' by 12' in size. The foundation and building will be constructed in compliance with existing laws, ordinances, regulations and statutes.
3. **Proposed modifications based on information not available prior to certification:** The modification is based on information that was not available at the time of certification. This structure will be constructed in the same area that included building of this type in the original application that was submitted to and approved by the California Energy Commission. These building were never built due to the bankruptcy of the Luz companies. Additionally, this building is proposed to be built on the site where office trailers were used for the first years of plant operation and will utilize existing water, electrical and sewer connections from those trailers.
4. **Environmental impact:**
 - a) **Summary:** The proposed project will not result in any significant adverse environmental impacts.
 - b) **Air quality:** minimal short-term air quality impacts are possible during construction of the foundation and building. Excavation will not be necessary to route electrical wiring. The construction of the foundation will take approximately 2 weeks to complete. The erection of the pre-fabricated building and construction of the building interior will be accomplished by skilled site personnel over a period of approximately three months, with no change expected in the normal activity or emissions from the facility.. Minor dust emissions and vehicle exhaust are possible. NextEra Energy will mitigate dust emissions using standard dust control practices, including watering. Further, our practice is to ensure that minimal vehicle idling occurs, thereby minimizing vehicle exhaust. Furthermore, all equipment used on site is required to be in proper working order, including properly tuned engines. We believe these measures, coupled with the short-term nature of the foundation construction, will result in air emissions that are not significant.
 - c) **Noise:** No significant noise impacts will result from the proposed project. Based on our knowledge of practices for construction of this type, no activities associated with the project have the potential to generate significant noise levels at or beyond the facility boundary.
 - d) **Cultural resources:** No adverse impacts on cultural resources (archeological or paleontological) will result from the proposed project. During CEC review of the original project, a complete paleontological survey was conducted on the overall project site. The supporting documentation is available in the project files on site if necessary. No cultural resources were identified within the plant boundary and the proposed project is located within the plant boundary. Furthermore, excavation, grading and other construction activities in the vicinity

- e) of the currently proposed project were carried out during the original construction of the project. Therefore, the area has already been disturbed, and no cultural resources were discovered during construction of the existing plant. Additionally, excavation for the foundation will not exceed a depth of two feet below grade.
- f) **Biological resources:** No adverse impacts on biological resources will result from the proposed project. During CEC review of the original project a complete biological survey was conducted on the overall project. Desert tortoises are potentially present within the overall project area, but the plant boundaries are fenced to eliminate the possibility of tortoises straying into the plant. As part of our normal contractor orientation program, NextEra Energy awareness training and information on the possible presence and the proper response to a sighting, per our existing Conditions of Certification.
- g) **Visual impacts:** No significant adverse visual impacts will result from the proposed project. The proposed building will be of the same type, height, and color as existing building in the area thus minimizing incremental visual impacts and rendering the proposed project insignificant with regard to the existing project profile.
- h) **Hazardous materials:** The proposed project will not result in any potential adverse environmental impacts associated with hazardous materials use.
- i) **Water Resources:** The proposed project will not result in any significant adverse impact to water resources.
- 5. **Labor:** The daily local work force will average 10 for the construction of the foundation for a period of approximately 2 weeks.
- 6. **Transportation:** For the foundation, about 4 trucks will be used to haul concrete and rebar across a period of one week and 1 truck for the building frame during a period of one day. All additional materials will be delivered to the site by the routine deliveries that currently exist. This will have little adverse impact to traffic.
- 7. **Environmental impact mitigation:** No mitigation will be required since there will be no additional environmental impact.
- 8. **Affect on the public:** This minor amendment will not affect the public since this change does not change the operation of the facility.
- 9. **Consistent with the overall intent of the Decision:** The proposed modification is a minor amendment to the original Certification of Conditions and is consistent with the overall intent of the Decision.
- 10. **Approval date and reason:** A request is to approve this minor amendment respectfully in a timely manner to allow the building to be completed in 2013. All applicable permits and building inspections will be obtained for this project.

Should you have any questions or require additional information please contact me at (760) 762-5562 extension 395, or Glen King at (760) 762-3100 extension 231.

Sincerely,



Robert Fimbres
Plant General Manager
Luz Solar Partners Ltd., VIII & IX

Attachments

Attachment 1
Proposed Location

Attachment 1

General Site Overview



Proposed Location

Detail Views



Proposed Location



Ground Level View



Proposed location shown in red.

Attachment 2

Building Plans



NextEra Energy Resources

SEGS 8-9 Solar Facility Training Room & Break Room Building

SHEET INDEX

Architectural Plans:

- CVR Cover Sheet
SP1 Site Plan
A1 Floor Plan
A2 Exterior Elevations
A3 Reflected Ceiling Plan
A4 Roof Plan &
Cross Section "A"

Structural Plans:

- S1 Foundation Plan
S2 Foundation Details

Electrical Plans:

- E1 Power & Lighting
Plan

Plumbing Plans:

- P1 Water Pipe Sizing &
DWV Isometrics

REVISION	NO.	BY	DATE	DESCRIPTION

PA design associates
Planning • Building Design • Development
Ph. 760-887-1080
P.O. Box 603
Adelanto, CA 92301

NextEra Energy Resources
SEGS 8-9 Solar Facility
43880 Harper Lake Road
Hinkley, CA. 92347

PROJECT

COVER SHEET
PROJECT DATA
SHEET INDEX

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DRAWN BY
JM

CHECKED BY
JM

JOB NO.
C-1600-13

DRAWING SHEET NUMBER
CVR

OF 8 DRAWINGS

ABBREVIATIONS

A.B.	ANCHOR BOLT	E.N.	EDGE NAIL
A.T.	ACOUSTICAL TILE	ENCL.	ENCLOSURE
ADJ.	ADJUSTABLE	E.M.S.	ENERGY MANAGE SYSTEM
A.F.F.	ABOVE FINISH FLOOR	EQ.	EQUAL
AIR COND.	AIR CONDITIONING	EQUIP.	EQUIPMENT
ANOD.	ANODIZED	E.S.	EACH SIDE
ALUM/AL	ALUMINUM	EXH.	EXHAUST
APPROX.	APPROXIMATELY	EXIST.	EXISTING
BM.	BEAM	EXP.	EXPOSED, EXPANSION
BLK.	BLOCK	EXT.	EXTERIOR
BLK'G.	BLOCKING	FIN.	FINISH
BOT.	BOTTOM	F.R.P.	FIBERGLASS REIN. PANEL
BLDG.	BUILDING	F.F.	FINISH FLOOR SLAB
B.N.	BOUNDARY NAIL	F.E.	FIRE EXTINGUISH. ER
CLG.	CEILING	F.E.C.	FIRE EXTINGUISHER CAB.
CEM.	CEMENT	F.P.	FIRE PROOF
C.F.	CURB FACE	FLASH	FLAHING
CL	CENTERLINE	FLR.	FLOOR
C.T.	CERAMIC TILE	F.D.	FLOOR DRAIN
CLR.	CLEAR	F.T.	FOOT
COL.	COLUMN	FTG.	FOOTING
CONC.	CONCRETE	FND.	FOUNDATION
C.B.	CONCRETE BLOCK	GA.	GAUGE
CONST.	CONSTRUCTION	G.C.	GENERAL CONTRACTOR
CONT.	CONTINUOUS	GEN.	GENERAL
C.J.	CONTROL JOINT	G.I.	GALVANIZED IRON
CORR.	CORRIDOR	GL.	GLASS, GLAZING, GLAZED
CTRD.	CENTERED	GR.	GRADE
DP.	DEEP	GYP.	GYPSUM BOARD
DET.	DETAIL	HDWR.	HARDWARE
DIAG.	DIAGONAL	H.D.	HUB DRAIN
DIA.	DIAMETER	H.D.	HOLE DOWN
DIM.	DIMENSION	HT.	HEIGHT
DR.	DOOR	H.M.	HOLLOW METAL
DBL	DOUBLE	HORIZ.	HORIZONTAL
DN.	DOWN	I/F	INTERFACE
DT.	DRIVE -THRU	INS.	INSULATION, INSULATE
DWG.	DRAWING	INT.	INTERIOR
EA.	EACH	JNT.	JOINT
E.S.	EACH SIDE	JST.	JOIST
ELEC.	ELECTRICAL	LAM.	LAMINATE, LAMINATED
E.P.	ELECTRICAL PANEL	LTG.	LIGHTING
E.J.	EXPANSION JOINT	MFR.	MANUFACTURER
EL.	ELEVATION (GRADE)	MAT'L	MATERIAL
ELEV.	ELEVATION (BLOG)	MAX.	MAXIMUM

MECH.	MECHANICAL	S/G/E/	SEMI-GLOSS ENAMEL
MEMB.	MEMBRANE	SHT'G	SHEATING
MTL.	METAL	SK.	SINK
M.L.	METAL LATH	S.D.	SOAP DISPENSER
MIN.	MINIMUM	SOL.	SOLID
MISC.	MISCELLANEOUS	SPECS.	SPECIFICATIONS
MLDG.	MOULDING	SQ.	SQUARE
N.I.C.	NOT IN CONTRACT	S.S.	STAINLESS STEEL
N.T.S.	NOT TO SCALE	STD.	STANDARD
O.C.	ON CENTER	STL.	STEEL
OFCI.	OWNER FUR. CONTR INSTALL	STOR.	STORAGE
O/	ON	ST.	STREET, STRAIN
OPN'G	OPENING	STRUCT.	STRUCTURAL
OPP.	OPPOSITE	SUSP.	SUSPENDED, SUSPEND
O.A.	OVERALL	SW.	SWITCH
O.H.	OVERHEAD	SYS.	SYSTEM
P.G.	PAINT GRADE	T.B.	TOWEL BAR
PR.	PAIR	TEL.	TELEPHONE
PNL.	PANEL	THERMO.	THERMOSTAT
PART.	PARTITION	THK.	THICK
PERF.	PERFORATION	THRU.	THROUGH
PLAS.	PLASTER	TOIL.	TOILET
PTDF	PRESS TREAT DOUG-FIR	T.P.H.	TOILET PAPER HOLDER
PLYWD.	PLYWOOD	T.C.	TOP OF CURB
PROP.	PROPERTY	T.P.	TOP OF PAVING
P.L.	PROPERTY LINE	T.R.	TOP OF ROOF
P.V.C.	POLY VINYL CHLORIDE	T.O.P.	TOP OF PARAPET
R.	RISER	T.O.S.	TOP OF SLAB
REFER.	REFRIGERATOR	T.O.W.	TOP OF WALL
R.S.	REMOTE SENSOR	T.S.B.	TOP SET BASE
REINF.	REINFORCING	T.	TREAD
RED'D	REQUIRED	T.S.	TUBULAR STEEL
RET.	RETURN	TYP.	TYPICAL
R.A.	RETURN AIR	UNFIN.	UNFINISHED
RCP	REFLECTED CEILING PLAN	U.O.N.	UNLESS OTHERWISE NOTED
R.D.	ROOF DRAIN	VENT.	VENTILATE, VENTILATION
ROOF'G	ROOFING	VEST.	VESTIBULE
RM.	ROOM	V.B.F.	VENT BELOW FLOOR
R.O.	ROUGH OPENING	V.T.	VINYL TILE
RUB.	RUBBER	W.T.	WASHABLE LAY'N TILE
R.B.	RUBBER BASE	W.C.	WATERCLOSET
R.T.	RUBBER TILE	W.P.	WATERPROOF
S.E.	SATIN ENAMEL	W.W.F.	WELDED WIRE FABRIC
SCHED.	SCHEDULE	W.	WIDE, WIDTH
SECT.	SECTION	W/	WITH
		W/O	WITHOUT

DIRECTORY

Owner:
NextEra Energy Resources
SEGS 8-9 Solar Facility
Harper Lake Facility
43880 Harper Lake Road
Hinkley, CA. 92347

Project Designer:
PA Design Associates, Inc.
PO Box 603
Adelanto, CA. 92301
ph. (760) 887-1080

E-mail : PADesignassociates@msn.com
Attn: Joe Mazariegos

Engineer of Record:
Jerry Miles, PE
PO Box 1861
Apple Valley, CA. 92308
(760) 956-5201
E-mail : Jerryfm59@aol.com

PROJECT DATA

PROJECT DESCRIPTION:
To construct a 40'x40' metal building to be used as a break room area and a conference room for employees ONLY. The building will have a restroom for employee use as well near the break room.
The new building is a part of NextEra's Harper Lake Facility which is for employees only. No public or customers are expected to use the proposed structure or facility.
The existing facility has enough parking for the existing and the proposed use of the new building. Additional parking is proposed for the 2 HC spaces that are being provided.
All driveways are existing and no changes or modifications are being proposed.

A new 20'x105' Metal Carport Cover is also part of the new construction to the facility. The carport will be constructed over some of the existing parking area as shown.

The existing building and all flatwork & proposed parking is to be constructed per 2010 CBC, CMC, CPC, CEC & CGC

APPLICATION TYPE:
Conditional Use Permit

PARCEL NUMBER:
APN

LAND USE:
Solar Plant

ZONING DISTRICT:
CG-1

SPRINKLERED:
No

OCCUPANCY TYPE:
Building: B

OCCUPANT LOAD:
Break Room: 605 / 100 O.L.F. = 6
Conference / Training Room: 637 / 100 O.L.F. = 7

CONSTRUCTION USE:
I-I-N (Metal Building)

BUILDING AREA:
Training Room / Break Room: 1,600 Sq. Ft.

CODE SUMMARY

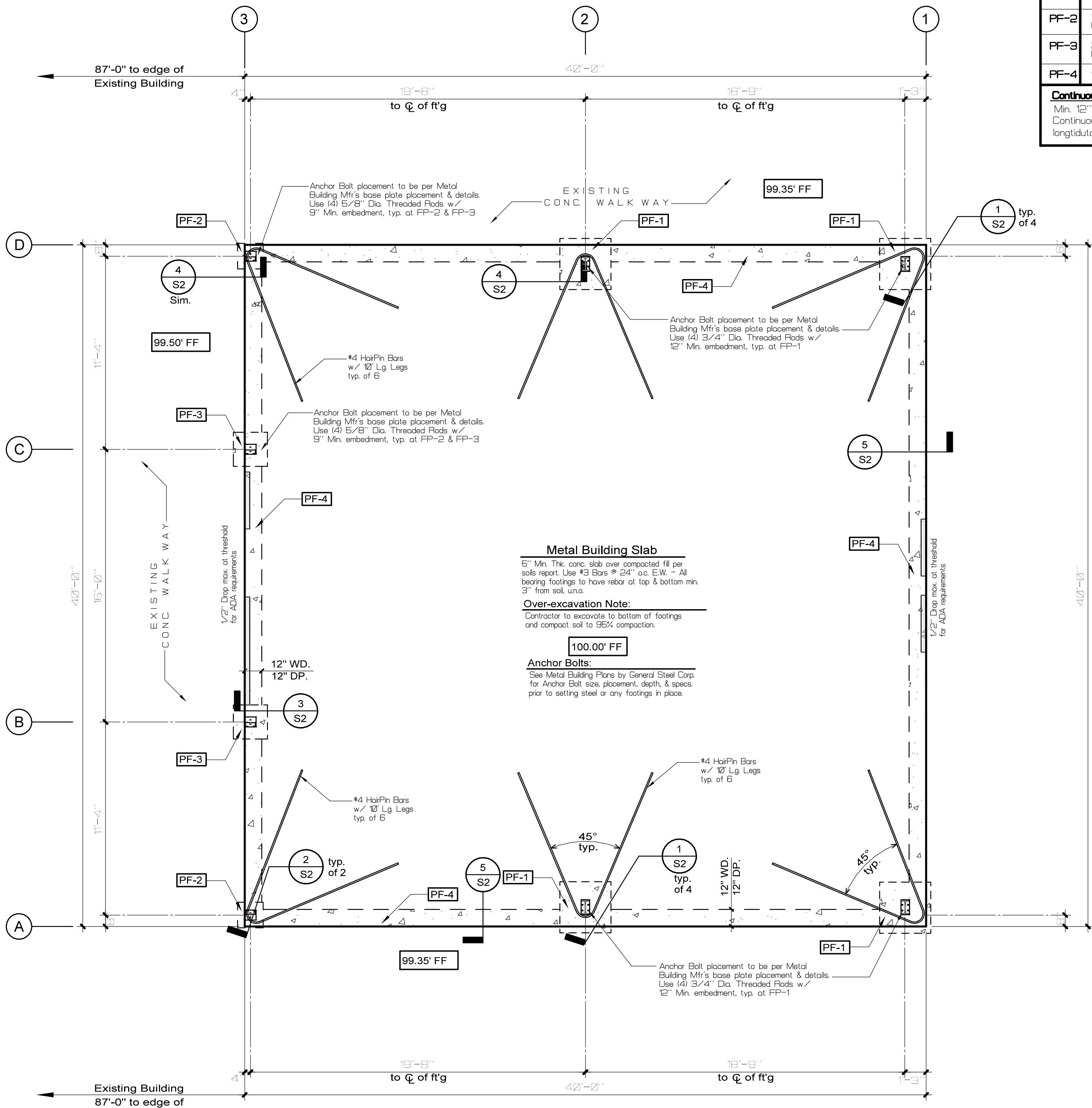
All construction of this project shall comply with the following:

- 2010 California Building Code
- 2010 California Fire Code
- 2010 California Mechanical Code
- 2010 California Plumbing Code
- 2010 California Electrical Code
- Title 24 (ADA) Calif. Admin. Code

This project shall comply with all other regulations and ordinances adopted by the local governing agencies.

VICINITY MAP






FOUNDATION PLAN

SCALE 1/4" = 1'-0"

PF-#	Pad Footing:
PF-1	36" Sq x 24" Dp. Concrete Footing w/ #4 Hairpin bars -Use (3) #4 Hairpin bars each way at bottom -provide (4) 3/4" threaded rod anchor bolts with 12" Min. embedment.
PF-2	18" Sq x 24" Dp. Concrete Footing w/ (2) #4 bars each way @ bottom. Provide (4) 5/8" threaded rod anchor bolts w/ 9" Min. embedment.
PF-3	24" Sq x 18" Dp. Concrete Footing w/ (2) #4 bars each way @ bottom. Provide (4) 5/8" threaded rod anchor bolts with 9" Min. embedment.
PF-4	12" Wd x 12" Dp. Cont. Concrete Footing w/ #4 bars @ top & bottom.
Continuous Footing: Min. 12" Wide w/ 12" minimum embedment into soil. Continuous footings shall have a minimum of 2-#4 Rebar longitudinally @ 2' from the top and 3' from the bottom.	

REVISION		PRINTS ISSUED	
NO.	BY	DATE	DESCRIPTION



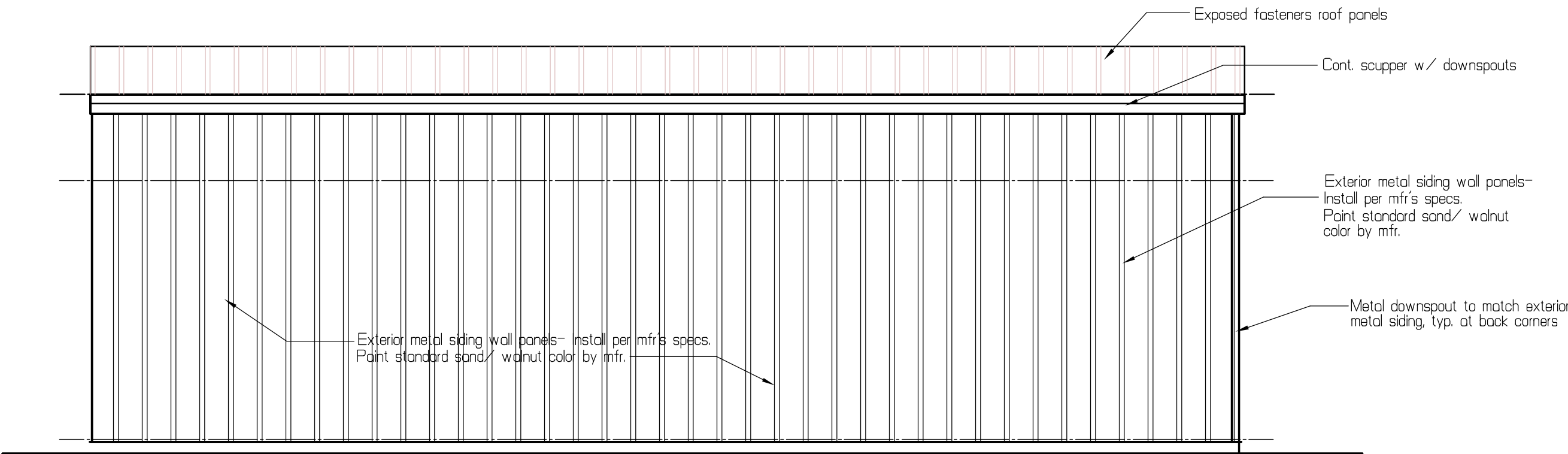
design associates
Planning • Building Design • Development
Ph: 760-887-1080
P.O. Box 603
Adelanto, CA 92301
Email: PAdesignassociates@gmail.com

CUSTOM PROJECT FOR:
NextEra Energy Resources
SEGS 8-9 Solar Facility
43880 Harper Lake Road
Hinkley, CA. 92347

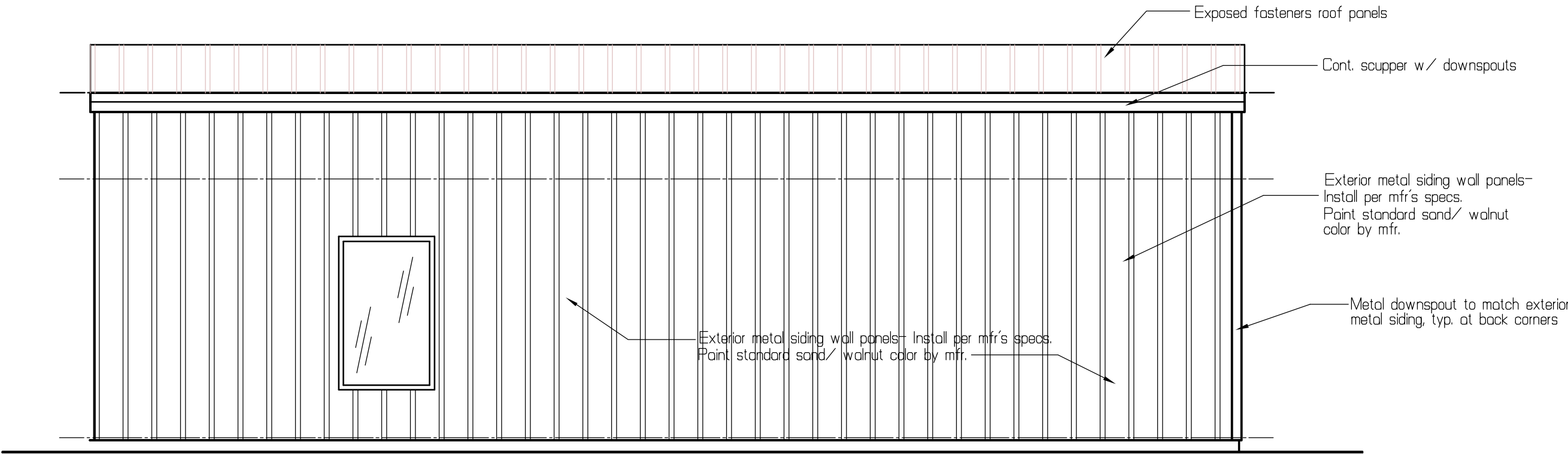
DRAWING CONTENTS
Foundation Plan

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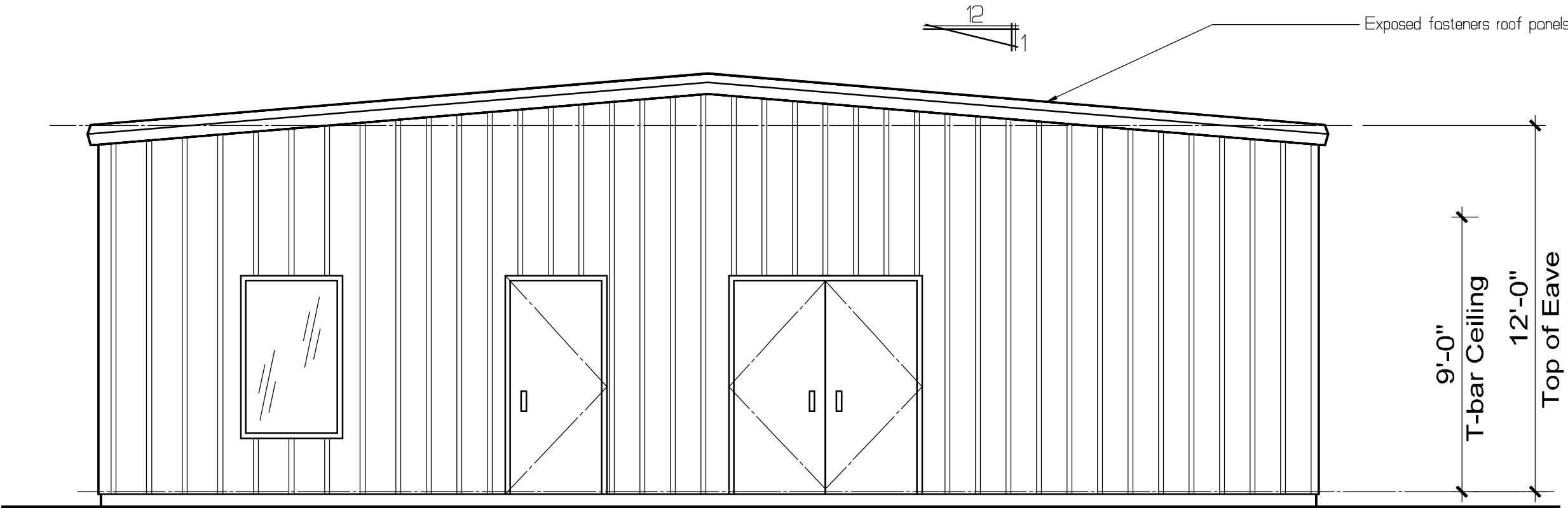
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OF 8 DRAWINGS			



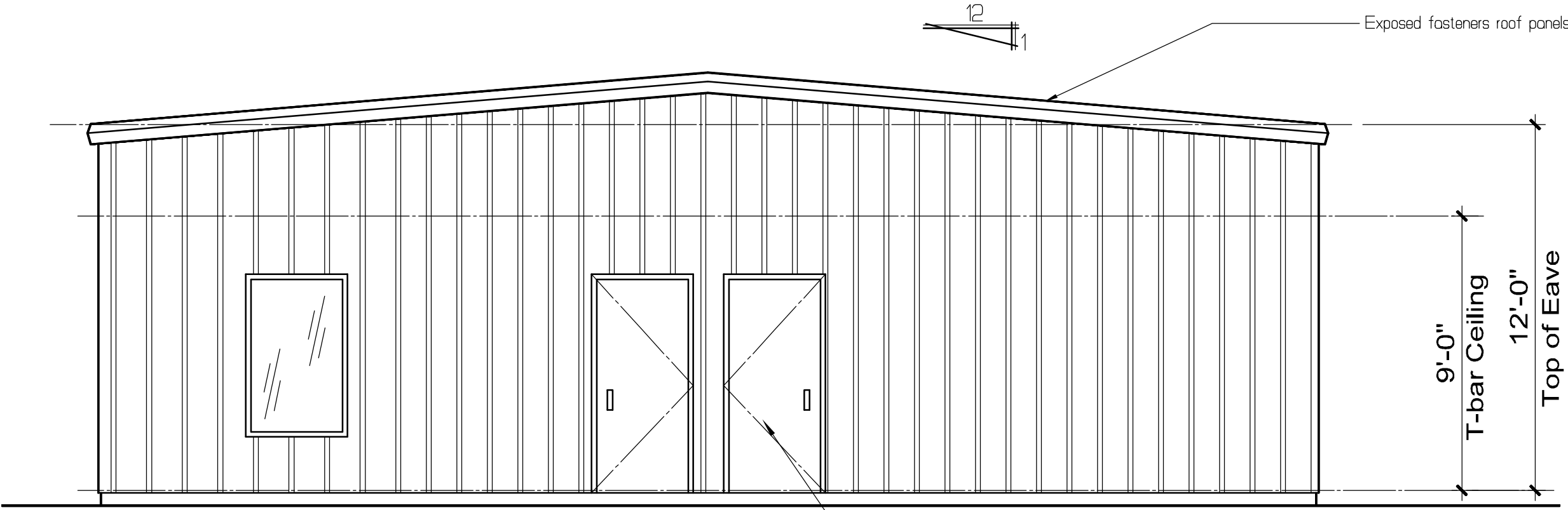
North (Metal Bld'g GridLine A)



South (Metal Bld'g GridLine D)



West (Metal Bld'g GridLine 3)



East (Metal Bld'g GridLine 1)

Exterior Elevations

SCALE 1/4" = 1'-0"

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PA

design associates

Planning • Building Design • Development
Ph. 760-887-1080
P.O. Box 803
Adelante, CA 92301

Scan: info@paassociates.com

CUSTOM PROJECT FOR:

NextEra Energy Resources
SEGS 8-9 Solar Facility
43880 Harper Lake Road
Hinkley, CA. 92347

DRAWING CONTENTS

Exterior Elevations and
Roof Plan

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FIELD TECHNICAL INFORMATION
Application recommendations for work at the wall or ceiling

401
REVISED 10/09

Suspension Systems for Acoustical Lay-in Ceilings
Seismic Design Categories D, E & F

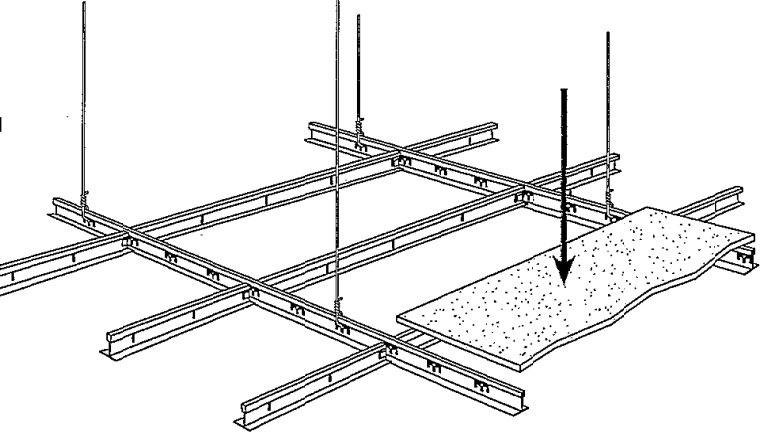
This document has been revised based on current Building Code standards, in all buildings, other than structures classified as essential facilities, suspended ceilings installed in accordance with the prescriptive provisions of the 401 document are deemed to comply with the current building code interpretation.

This document provides the IBC-2009 referenced standards for the installation of suspension systems for acoustical lay-in ceilings.

Incorporation of this document will provide a more uniform standard for installation and inspection. This document is designed to accomplish the intent of the International Building Code (IBC) with regard to the requirements for seismic design category D, E and F for suspended ceilings and related items.

Unless supported by engineering, the suspension system shall be installed per these requirements.

Manufacturers' recommendations should be followed where applicable.



- General Recommendations**
- Referenced sources per hierarchy: 2009 IBC (International Building Code), American Society of Testing Materials (ASTM) C 635, ASTM C 638, ASTM E 830E 580M, American Society of Civil Engineers (ASCE 7-05) and Ceilings and Interior Systems Construction Association (CISCA).
 - Partitions that are fast to the ceiling and all partitions greater than 6 feet in height shall be laterally braced to the structure. Bracing shall be independent of the ceiling spray bracing system. Source: ASCE 7-05 section 13.6.2.1.
 - For further information on bracing of non-load bearing partitions refer to NWCB technical document #200-001.
 - All main beams are to be Heavy Duty (HD). Source: ASCE 7-05 section 13.6.2.2 a.
 - All cross tees shall be capable of carrying the design load without exceeding deflection equal to 1/600 of its span. Source: CISCA zones 3-4.
 - These recommendations are intended for suspended ceilings including grid, panel or tile, light fixtures and air terminals weighing no more than 4 lbs. per square foot. Source: ASCE 7-05 section 13.6.2.1.
 - All wire ties are to be three tight turns around each main beam and cross tee. Twelve gauge hanger wire spaced 4 feet on center (figure 1). Source: ASTM C 638 Item 2.3.4.
 - Changes in ceiling planes will require positive bracing. Source: ASCE 7-05 13.6.2.2.1.

figure 1

figure 2

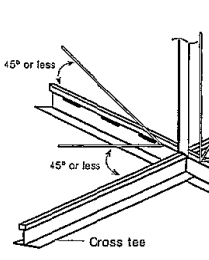
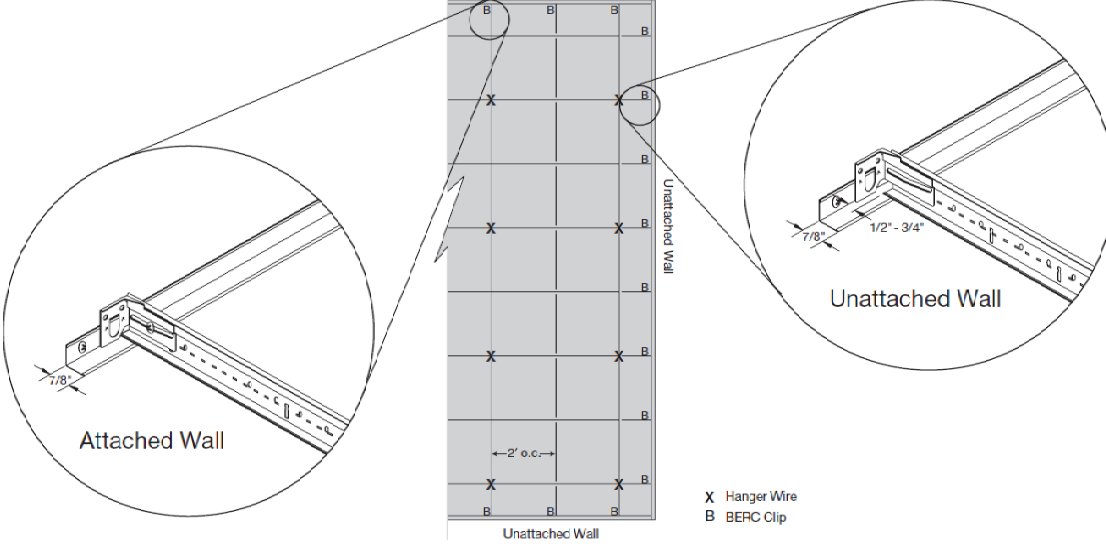


figure 3

Maximum Recommended Lengths for Vertical Struts	
EMT CONDUIT	
3/4" EMT conduit	up to 4'
1/2" EMT conduit	up to 6'
1" EMT conduit	up to 10'
1 1/4" EMT conduit	up to 16'

- Lateral Force Bracing (figures 2 and 3)**
- Ceilings constructed of lath and plaster or gypsum board, screw or nail attached to suspended members that support a ceiling on one level extending from wall to wall shall be exempt from the lateral force bracing requirements. Source: CISCA zones 3-4.
 - Lateral force bracing is the use of vertical struts (compression posts) and spray wires (see figure 2).
 - For ceiling areas exceeding 1,000 square feet, horizontal restraint of the ceiling to the structural system (lateral force bracing) shall be provided. Source: ASCE 7-05 section 13.6.2.2 b.
 - Lateral Force Bracing shall be 12 feet on center (maximum) and begin no further than 6 feet from walls. Source: CISCA seismic zones 3-4.
 - Seismic spray wires are to be four 12 gauge wires attached to the main beam. Wires are spaced 12" from each other and at an angle not exceeding 45° from the plane of the ceiling. Source: CISCA seismic zones 3-4.
 - Seismic spray wires shall be attached to the grid and to the structure in such a manner that they can support a design load of not less than 200 pounds or the actual design load, with a safety factor of 2, whichever is greater (figure 3b). Source: CISCA zones 3-4.
 - Powder-driven shot-in-anchors (PISA), when used for seismic application as part of the prescriptive path in Seismic Design Categories D, E and F, shall have an ICC-ES approval for seismic applications and shall require "special inspection" irrespective of the type of occupancy category the structure is in. PISA anchors for kickier wires installed for purposes other than seismic restraint are exempt from this requirement.
 - Spray wires are to be within 2 inches of the connection of the vertical strut to suspended ceiling. Source: CISCA seismic zones 3-4.
 - Rigid bracing may be used in lieu of spray wires. Source: ASCE section 13.6.2.2 c.
 - Ceilings with plenums less than 12 inches to structure are not required to have lateral force bracing. Source: Portland Building Department.
 - Vertical struts must be positively attached to the suspension systems and the structure above. Source: CISCA 3-4.
 - The vertical strut may be EMT conduit, metal studs or a proprietary compression post (see figure 3b).
- Wall Moldings**
- Wall moldings (perimeter closure angles) are required to have a horizontal flange 2 inches wide. One end of the ceiling grid shall be attached to the wall molding, the other end shall have a 1/4 inch clearance from the wall and free to slide. Source: ASCE 7-05 section 13.6.2.2 b.
 - Where substantiating documentation has been provided to the local jurisdiction, perimeter clips may be used to satisfy the requirements for the 2-inch closure angle. Source: State of Oregon, Building Codes Division.
 - The grid shall be attached at two adjacent walls (top rivets or approved method). Soffits extending to a point at least level with the bottom planes of the grid and independently supported and laterally braced to the structure above are deemed to be equivalent to walls.
- Spreader Bars (figure 4)**
- Spreader (span) bars shall be used to prevent the ends of the main beams and cross tees at perimeter walls from spreading open during a seismic event. Perimeter wires shall not be in lieu of spreader bars. Source: CISCA seismic zones 3-4.
 - Spreader bars are not required at perimeters where runners are attached directly to closure angles.
 - Wire tying is an acceptable alternative to spreader bars.
 - Spreader bars are not required if a 90 degree intersecting cross or main is within 8 inches of the perimeter wall.
 - Where substantiating documentation has been provided to the local jurisdiction, perimeter clips may be used to satisfy the requirements for spreader bars.

Alternative Installation Using BERC2 Category D, E, F



4-9

For more information call 1-877-ARMSTRONG



- Hanger (Suspension) Wires (figures 5a and 5b)**
- Hanger and perimeter wires must be plumb within 1 in 6 unless (figure 5a) counter-sloping wires are provided (figure 5b). Source: ASTM C 638 section 1.1.4.
 - Hanger wires shall be 12 gauge and spaced 4 feet on center or 10 gauge spaced 5 feet on center. Source: ASTM C 638.
 - Any connection device at the supporting construction shall be capable of carrying not less than 100 pounds. Source: CISCA zones 3-4.
 - Powder-driven shot-in anchors (PISA) are an approved method of attachment for hanger wires. Source: State of Oregon, Building Codes Division.
 - Terminal ends of each main beam and cross tee must be supported within 8 inches of each wall with a perimeter wire (see figure 4 & 5 b). Source: CISCA zones 3-4.
 - Wires shall not attach to or be around interfering material or equipment. A truss or equivalent device shall be used where obstructions produce direct suspension. Truss suspension shall be a minimum of back-to-back 1 1/2 inch cold-rolled channels for spans exceeding 48 inches. Source: CISCA zones 3-4.
- Electrical fixtures**
- Light fixtures weighing less than 10 pounds shall have one 12 gauge hanger wire connected from the fixture to the structure above. This wire may be slack. Source: CISCA seismic zones 3-4.
 - Light fixtures weighing more than 10 pounds and less than 55 lbs. shall have two 12 gauge wires attached at opposing corners of the light fixture to the structure above. These wires may be slack. Source: CISCA seismic zones 3-4.
 - Light fixtures weighing more than 55 lbs. shall be supported directly from the structure above. These wires must be taut. Source: CISCA seismic zones 3-4.
 - Pendant mounted fixtures shall be directly supported from the structure above using a 9 gauge wire or an approved alternate support without using the ceiling suspension system for direct support. Source: CISCA seismic zones 3-4.
 - Tandem fixtures may utilize common wires.
- Mechanical Services**
- Terminals or services weighing 20 lbs. but not more than 55 lbs. must have two 12 gauge wires connecting them to the ceiling system hangers or the structure above. These wires may be slack. Source: CISCA seismic zones 3-4.
 - Terminals or services weighing more than 55 lbs. must be independently supported directly from the structure above. These wires must be taut. Source: CISCA seismic zones 3-4.

figure 5a

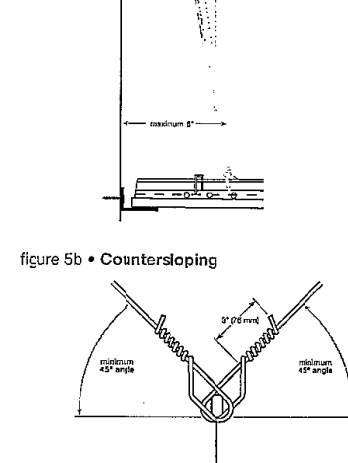


figure 5b

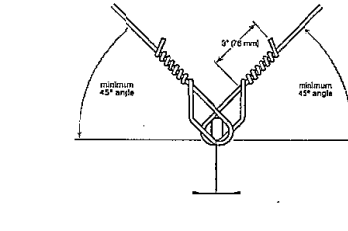


figure 5c

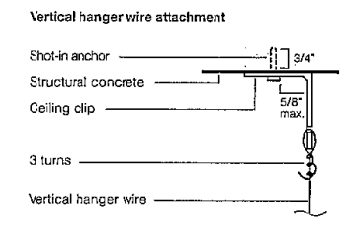


figure 5d

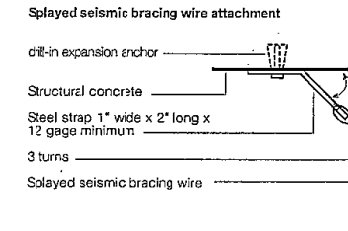
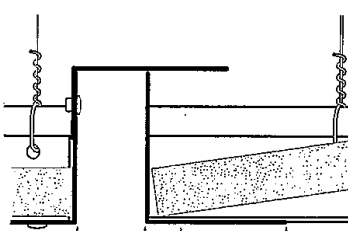
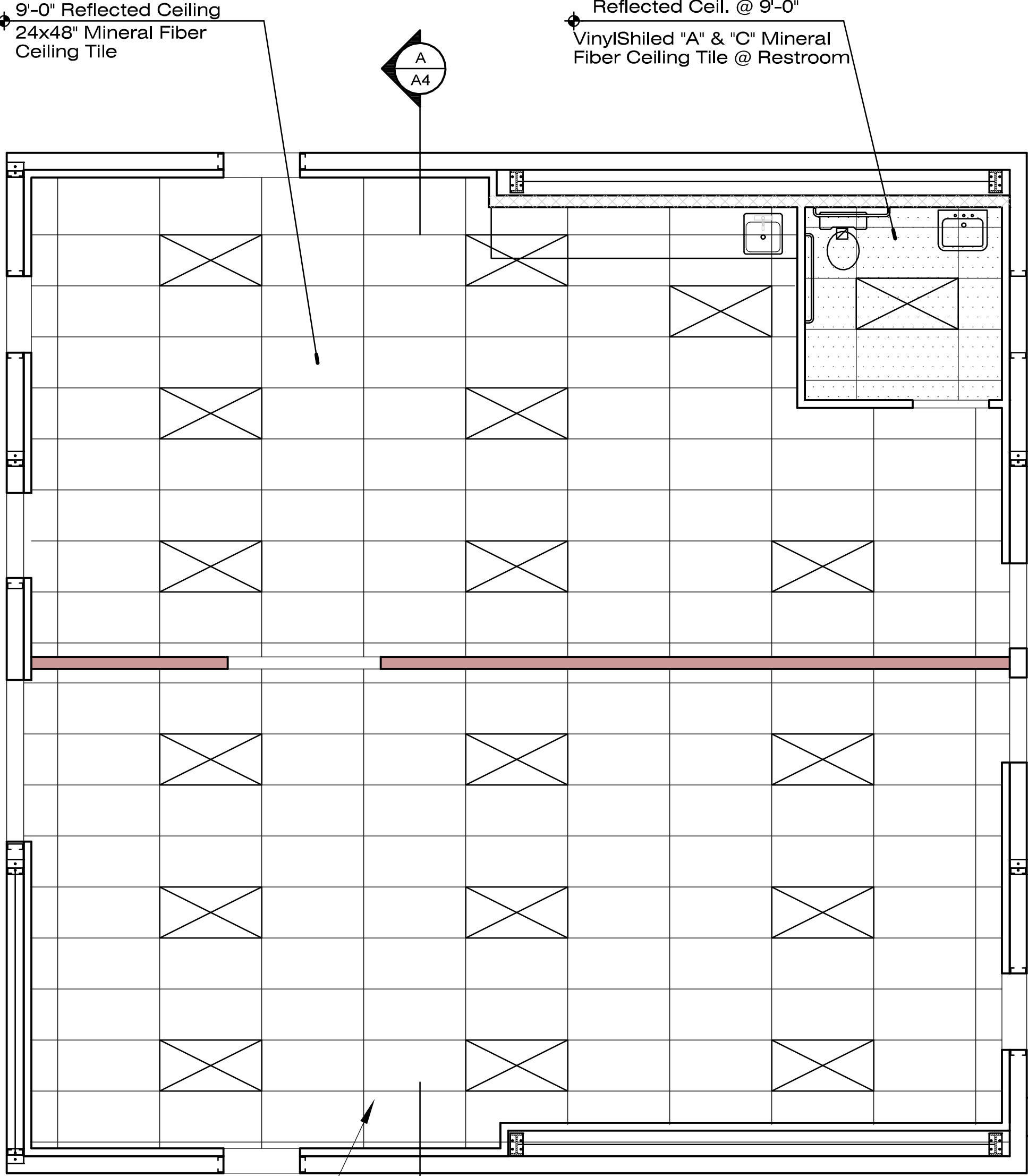


figure 7



- Sprinklers**
- For ceilings without rigid bracing, sprinkler head penetrations shall have a 2 inch oversize ring, sleeve or adapter through the ceiling tile to allow free movement of at least 1 inch in all horizontal directions. Flexible head design that can accommodate 1 inch free movement shall be permitted as an alternate. Source: ASCE 7-05 13.6.2.2.4



Framing contractor to provide adequate support for ceil. mtd projectors in training rooms -Verify w/ facility manager

REFLECTED CEILING PLAN

SCALE 1/4" = 1'-0"

Ceiling Legend

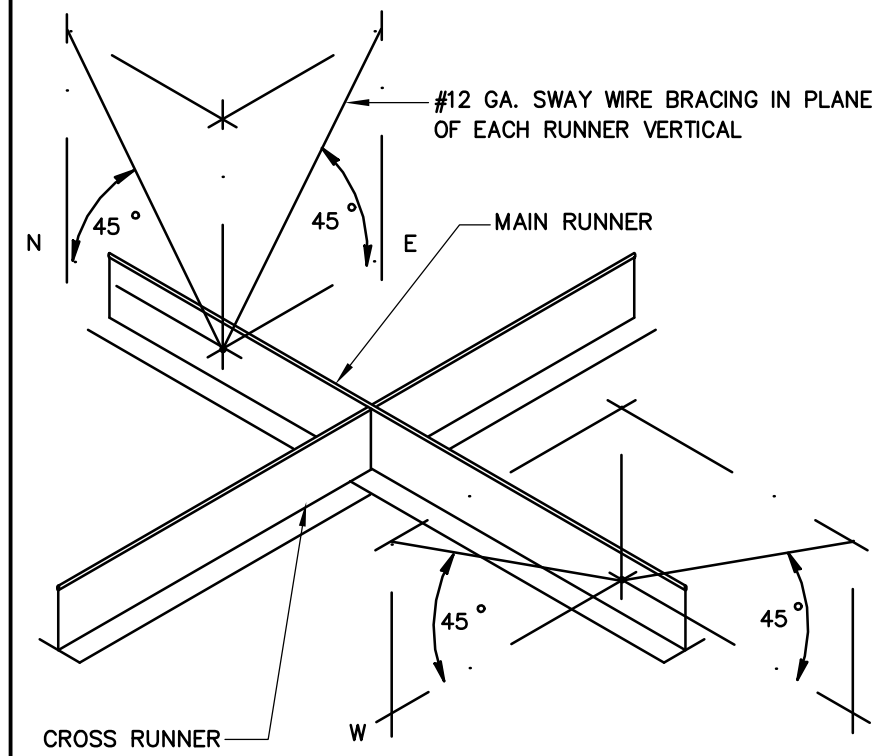
- 2x4" Acoustical Tile. See Notes/ Details Below
- Gyp. Board Ceiling at 9'-0"
- 2x4" Acoustical Tile with Non-absorbant finish over Restroom
- 2x4" Fluorescent Light Fixture (See Electrical Plans)
- Emergency Exit Light. See Electrical Plans. Provide Directional Arrows as Required
- Exhaust Fan. See Electrical Plans
- Recessed Down Light - See Electrical Plans

Note:
Acoustic ceiling contractor to install acoustic ceiling in accordance with ASTM C 635 & ASTM C 636 & requirements for Seismic Zone D

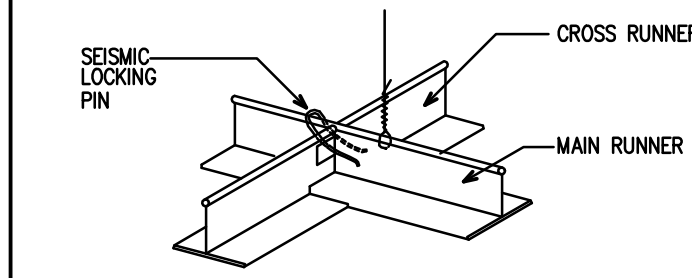
Suspended Ceiling Notes

- METAL SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND FOR LAY-IN PANEL CEILINGS SHALL BE INSTALLED IN ACCORDANCE WITH SECT. 8809 & ASTM C 635 & ASTM C 636
- CROSS-RUNNING SHALL BE SECURELY ATTACHED TO THE MAIN RUNNER BY SADDLE-TYING WITH NOT LESS THAN ONE STRAND OF NO. 16 OR TWO STRANDS OF NO. 18 U.S. GAUGE WIRE OR APPROVED EQUIVALENT ATTACHMENTS
- THE MAIN RUNNER AND CROSS-RUNNING SHALL BE NOT LESS THAN THE SIZES SET FORTH IN CURRENT 2000 CBC EXCEPT THAT OTHER STEEL SECTIONS OF EQUIVALENT STRENGTH MAY BE SUBSTITUTED FOR THOSE SET FORTH IN THIS TABLE
- HANGERS FOR SUSPENDED CEILINGS SHALL NOT BE LESS THAN THE SIZES SET FORTH IN 2000 CBC. FASTENED TO OR IMBEDDED IN THE STRUCTURAL FRAMING, MASONRY OR CONCRETE
- SPICES AND INTERSECTIONS OF RUNNERS SHALL BE ATTACHED WITH MECHANICAL INTERLOCKING CONNECTORS SUCH AS POP RIVETS, SCREWS, PINS, PLATES WITH BENT PINS OR OTHER APPROVED CONNECTORS. DESIGN CONNECTORS PER 2 - DESIGN LOAD OR ULTIMATE AXIAL TENSION OR COMPRESSION MAX. 60 lbs
- HANGERS SHALL BE SADDLE-TIED AROUND MAIN RUNNERS TO DEVELOP THE FULL STRENGTH OF THE HANGERS. LOWER ENDS OF FLAT HANGERS SHALL BE BOLTED WITH 1/8" BOLTS TO RUNNER CHANNELS OR BE BENT TIGHTLY AROUND RUNNERS AND BOLTED TO THE MAIN PART OF THE HANGER
- LIGHTING FIXTURES AND AIR DIFFUSERS SHALL BE SUPPORTED DIRECTLY BY WIRES TO THE STRUCTURE ABOVE
- HANGER WIRES TO HAVE 3 TIGHT TURNS AND BRACING WIRES TO HAVE 4 TIGHT TURNS BOTH ENDS OF WIRE

HANGER WIRE	ALLOW TENSION
#12	170#
#10	130#



NOTE:
BRACING, AS DETAILED, SHALL BE PROVIDED WHERE LAY-IN CEILING OCCURS FOR 96 SQ. FT. OR A PORTION THEREOF OCCURRING WITHIN A SINGLE SPACE.



1 Ceiling Suspension System

scale 3/4" = 1'-0"

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43880 Harper Lake Road
Hinkley, CA. 92347

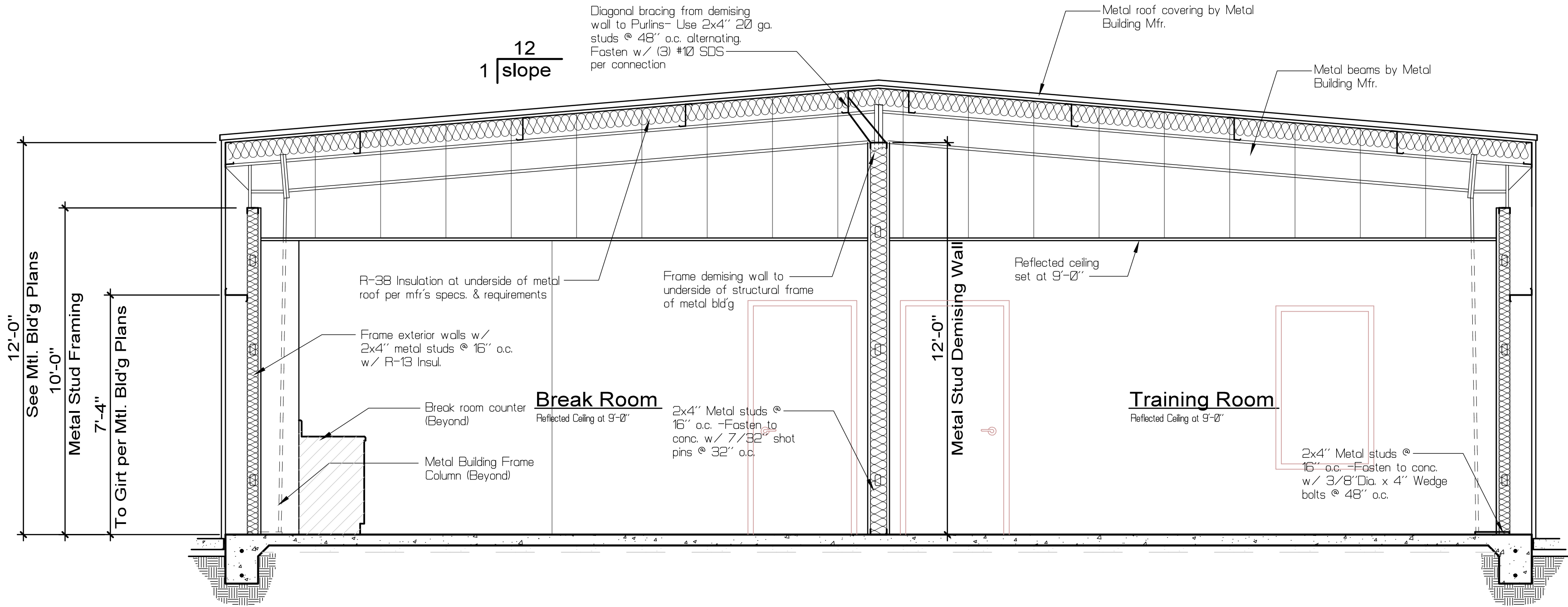
Reflected Ceiling Plan

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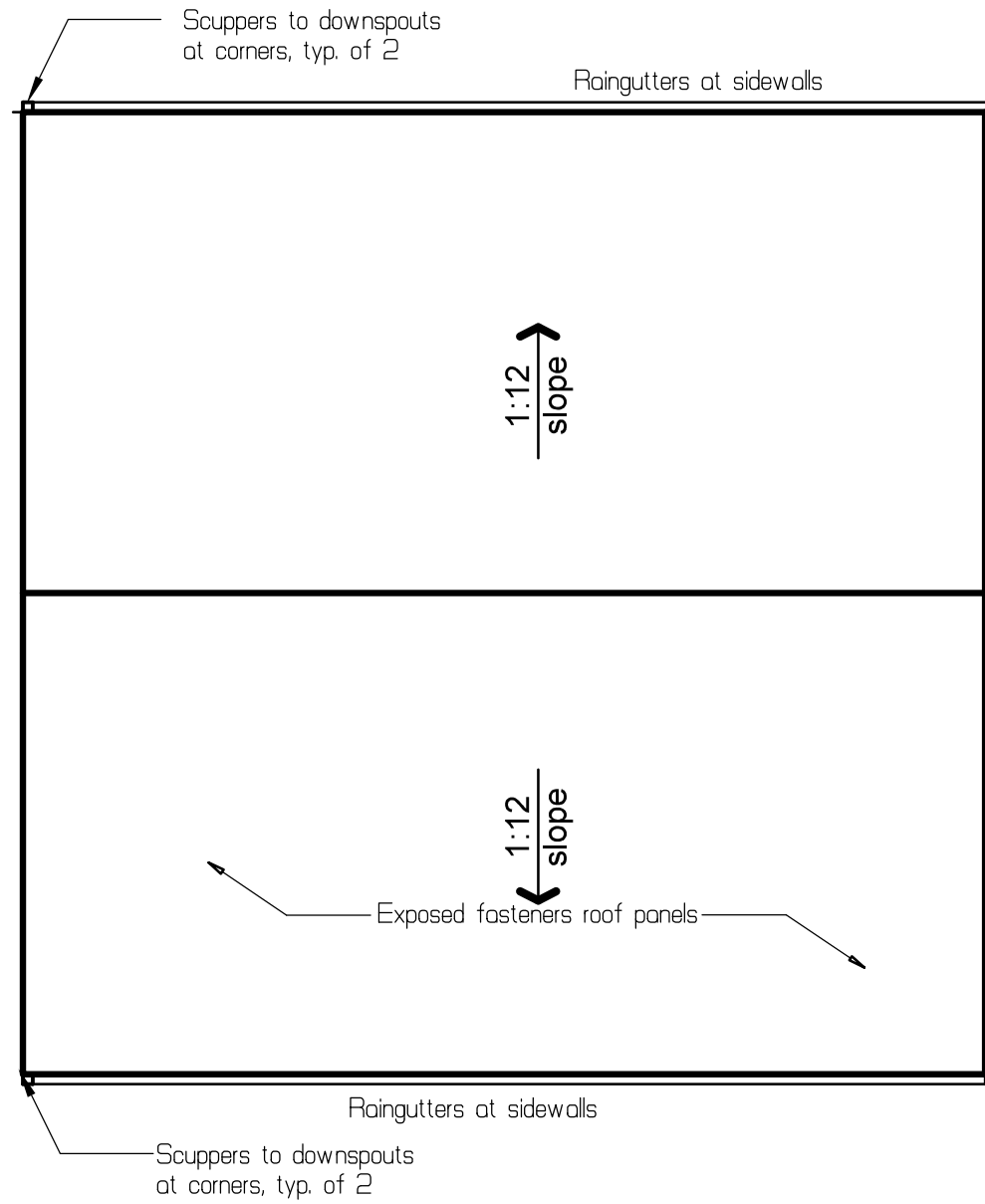
A3

OF 8 DRAWINGS



CROSS SECTION "A"

SCALE 3/8" = 1'-0"



Roof Plan

SCALE 1/8" = 1'-0"

ROOF DRAINAGE:

Roof drainage based on using the Rainfall Index of 3" per hour w/ a Flow at 1 in./ft. Slope. Max. Roof Area = 1600 sq. ft. (See Table 11-1 of Chapter 11 2010 California Plumbing Code) Allowable Horizontal Projected Roof Area per Table 11-2 of 2010 CFC.

Horiz. Rainwater Piping Capacity:

3" Sq. Raingutter at 1/4"/Ft. slope has a capacity of 1546 Sq. Ft. roof coverage area.

Downspout Piping Capacity:

3" Sq. Roof Downspout from gutters has capacity of 2,147 Sq. Ft. roof coverage area.

Provided:

Use (2) 3x3" Downspouts from rain gutters, shall be used for a roof area of 1600 Sq. Ft. - See Roof Plan for placement.

Drain No.	Roof Coverage	Allowable R. A.	Pipe Size
1	800 sq. ft.	1546 sq. ft.	3 x 3"
2	800 sq. ft.	1546 sq. ft.	3 x 3"

Downspouts to be run under conc. walkway in lieu of splash block and to drain to edge of conc. walk.

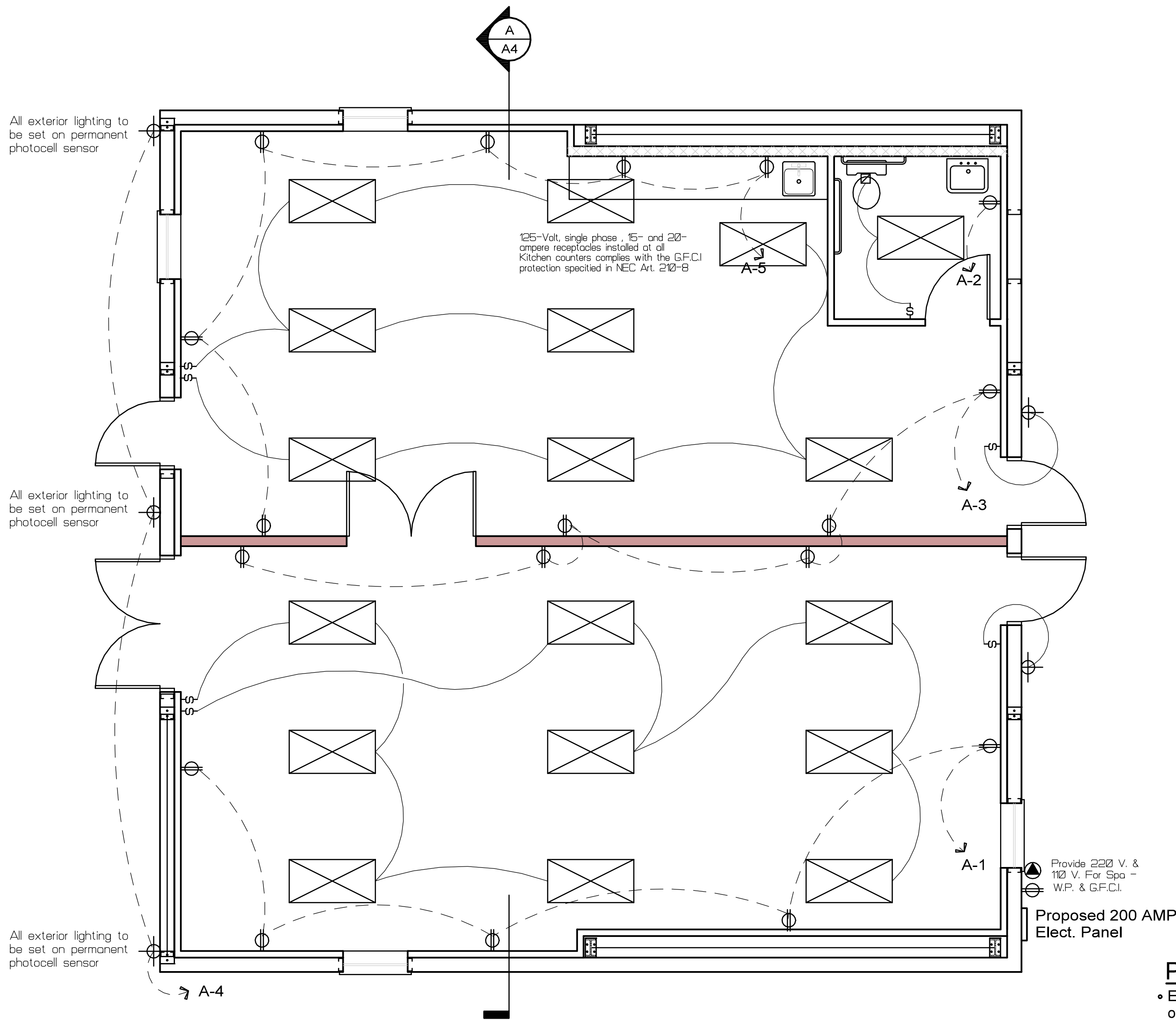
PA design associates
Planning • Building Design • Development
1000 N. 10th St., Suite 100
P.O. Box 803
Atlanta, GA 30301
Phone: 404.525.8888
Email: info@paassociates.com

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Hinkley, CA. 92347

DRAWING CONTENTS
ROOF PLAN & CROSS SECTION "A"

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Panel Information:

- Existing 2" conduit located at Northeast corner of proposed location of building
- Existing power of 1ø 125 AMP 3-Phase in conduit
- Proposed service panel:
- New 200 AMP 208/120V 3-phase Panel

ELECTRICAL PLAN

DIAGRAMMATIC

2010 California Energy Code Notes:

Section 150 (k)2: Permanently installed luminaires in kitchens shall be high-efficiency luminaires.

Exception: Up to 50 percent of the total rated wattage of permanently installed luminaires in kitchens may be in luminaires that are not high-efficiency luminaires, provided that these luminaires are controlled by switches separate from those controlling the high-efficiency luminaires. The wattage of high-efficiency luminaires shall be the total normal rated wattage of the installed high-efficiency lamp(s).

Section 150 (k) 3: Permanently installed luminaires in bathrooms, garages, laundry rooms and utility rooms shall be high-efficacy luminaires.

Exception: Permanently installed luminaires that are not high-efficiency shall be allowed provided that they are controlled by an occupant sensor(s) [sic] certified to comply with section 119 (d). Such motion sensors shall not have a control that allows the luminaire to be turned on automatically or that has an override allowing the luminaire to be always on.

Section 150 (k) 4: Permanently installed luminaires located other than in kitchens, bathrooms, garages, laundry rooms and utility rooms shall be high-efficacy luminaires.

Exception 1: Permanently installed luminaires that are not high-efficiency luminaires shall be allowed provided they are controlled by a dimmer switch.

Exception 2: Permanently installed luminaires that are not high-efficiency shall be allowed provided that they are controlled by an occupant sensor(s) [sic] certified to comply with section 119 (d). Such motion sensors shall not have a control that allows the luminaire to be turned on automatically or that has an override allowing the luminaire to be always on.

Exception 3: Permanently installed luminaires that are not high-efficiency luminaires shall be allowed in closets less than 70 square feet.

Section 150 (k) 6: Luminaires providing outdoor lighting and permanently mounted to a residential building or to other buildings on the same lot shall be high-efficiency luminaires.

Exception 1: Permanently installed outdoor luminaires that are not high-efficiency shall be allowed provided that they are controlled by a motion sensor(s) [sic] with integral photocontrol certified to comply with section 119 (d).

ELECTRICAL SYMBOLS LEGEND

- PHONE
- T.V.
- DUPLEX OUTLET
- DUPLEX OUTLET - 1/2 HOT
- DUPLEX OUTLET - UNDER COUNTER
- QUAD OUTLET
- 220 V. OUTLET
- TYPICAL LIGHT FIXTURE
- RECESSED CAN ELITE B6 PLIC-26-E
- WALL MOUNT LIGHT FIXTURE
- LOW BAY LIGHTS @ 400W EACH
- FLOOD LIGHT
- 96" FLUOR. FIXT. 4-TUBE 32 WATT, T-8, 110V.
- EXHAUST FAN
- SWITCH W/ MOTION SENSOR AND MANUAL OVERRIDE
- 3-WAY SWITCHES

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REVISION

PA design associates
Planning • Building Design • Development
Ph. 760-887-1080
P.O. Box 603
Adelanto, CA 92301
Email: PAdesignassociates@msn.com

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NextEra Energy Resources
SEGS 8-9 Solar Facility
43880 Harper Lake Road
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Floor Plan & General Notes

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E1

OF 8 DRAWINGS

PLUMBING GENERAL NOTES

- Contractors shall field verify the locations of all existing utility pipes prior to start of work. Necessary adjustments to the plumbing layout shall be done at no extra cost.
- Contractor shall notify all local utility companies including but not limited to the gas company, electric company, telephone company, and the water department, about the extent of plumbing work. All excavation work shall be approved by all utility companies to assure prevention of interruption of existing services prior to the start of work.
- All plumbing work shall meet or exceed the requirements of the 2010 California Building Code, California Plumbing Code, California Mechanical Code, C.E.C. Title 24, Americans with Disabilities Act (A.D.A), National Fire Protection Association (N.F.P.A), the local city and county codes and all other codes having jurisdiction. In case of conflict, the more strict regulations shall govern.
- All plumbing work shall be coordinated with the works of other trades prior to start of work. Necessary adjustments shall be made at no extra cost.
- For the extension of work beyond 5 feet from the building, see civil drawings.
- Manufacturer's names and model numbers shown for plumbing fixtures and equipment are for reference only. Other manufactures which can meet the design requirements of the plumbing system may be substituted upon approval from the architect and the owner.
- Sewer, vent, and drainage pipes shall be ABS Schedule-40. ABS piping shall be installed per IS-5, IS-9 per Chapter 15, CPC 2010.
- Hot/cold water pipes, condensate drainage and compressed air pipes above ground shall be type "L" hard drawn copper with wrought copper fittings.
- Cold water and compressed air pipes below ground shall be ASTM B88 type "K" hard drawn copper tubing factory insulated with wrought copper fittings.
- Provide dielectric fittings for dissimilar metals in contact.
- Provide handgers and supports for piping in accordance with the recommendations for MSS SP-69.
- Provide valves at the following locations:

A) Water main shut-off valve in valve box.

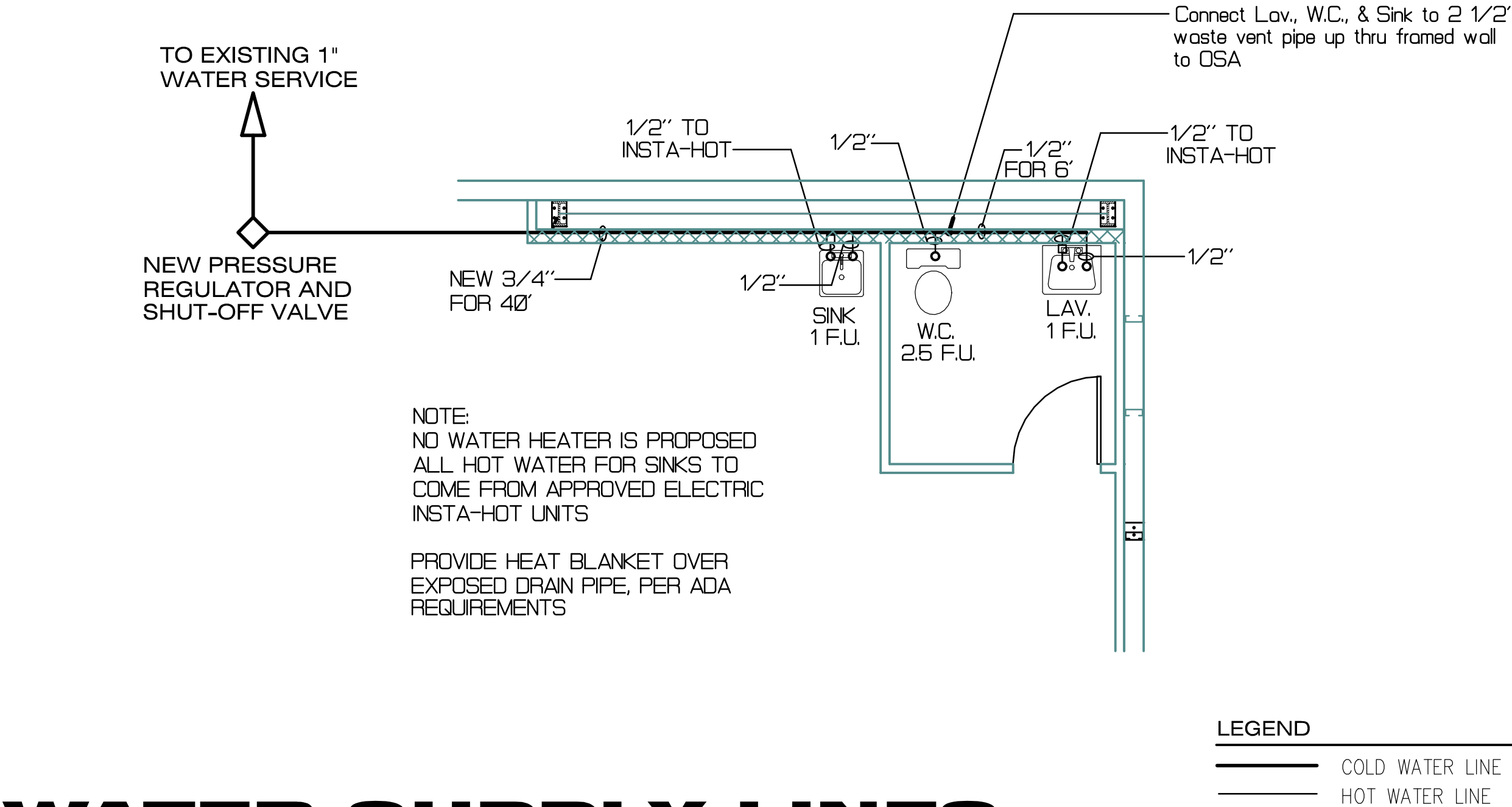
B) Valve with hose connection on downstream side of the main shut-off valve.

C) Shut-off valve on each supply to each fixture and equipment item no provided with control stop or other auxiliary shut-off valve.

Install shut-off valves so that stems either are vertical with handwheels or operators on top or are horizontal and so that valves are easily accessible for operation, service, removal and replacement.
- Provide sleeves for all pipe and tubing passing through floors, roofs, and walls. Pack oakum into the space around the pipe or tubing. Provide flashing for all pipes extending through the roof.
- All vent terminations at roof shall be at least 10 feet away from outside air intakes, operable windows, and the like.
- Fill cracks between fixtures and wall/floors with silicone rubber sealant.
- Locate, size, and install water hammer arresters in accordance with plumbing and drainage institute standard no. WH-201.
- Install fixtures in accordance with the manufacturer's recommendations and all applicable codes. Secure floor outlet or floor-mounted fixtures to drainage connections and floor in a rigid manner. Rigidly support wall-hung fixtures by means of metal supporting members. Use chromium-plated brass bolts, nuts, and washers where exposed. All connections shall be made gas-tight and water-tight. Use putty and plastics for gaskets with not be permitted.
- Provide all fixture components as indicated on drawings. Provide additional components as per manufacturer's recommendations for proper operation of the fixtures.
- Provide each plumbing fixture (including hose bibs) with an individual stop or compression valve of polished chrome-plated loose key type.
- Where depths or inverts elevations are not indicated, provide minimum coverage (above top of pipes) as follows:

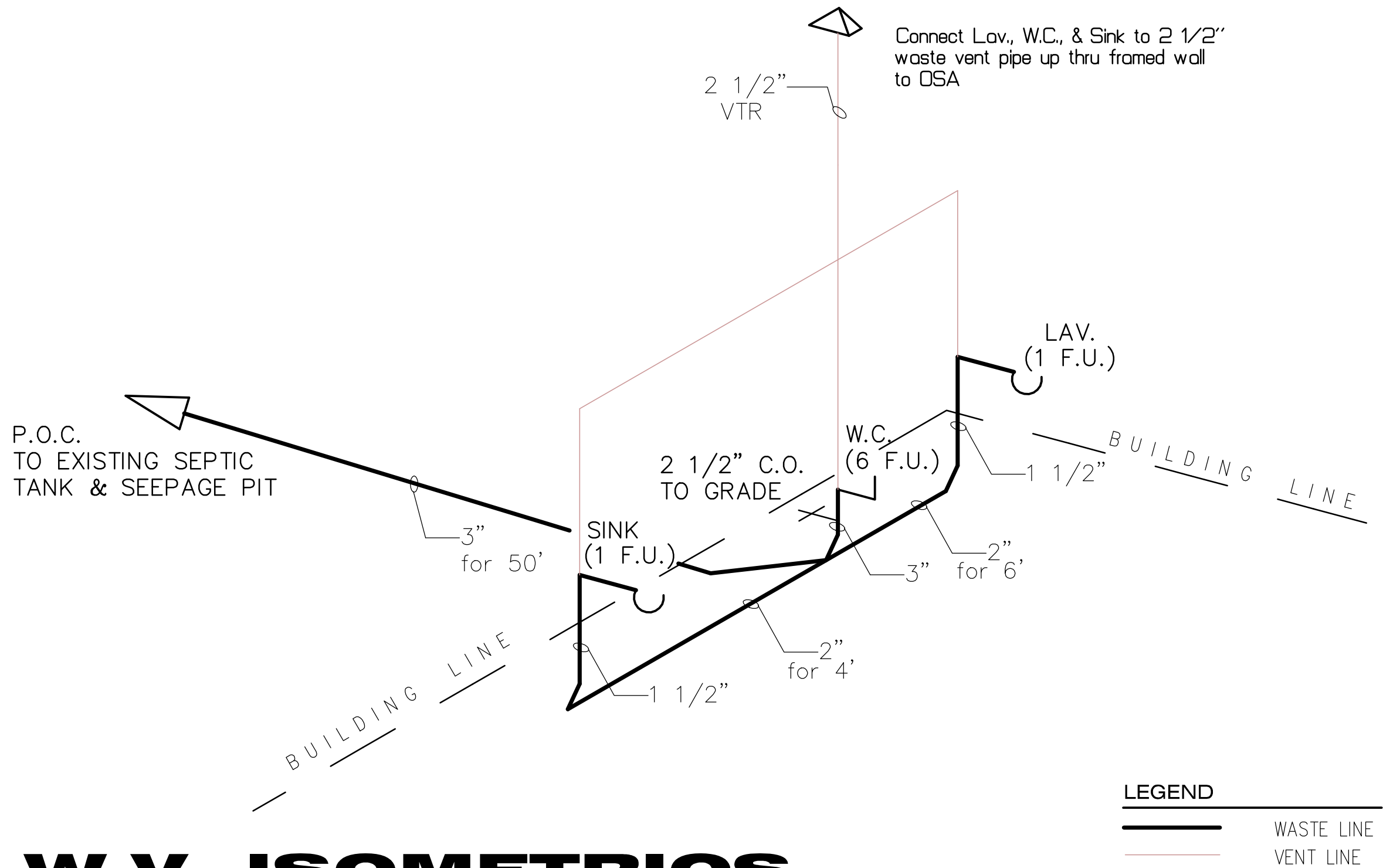
A) Any piping under slab (top of pipe to underside of slab): 18 inches.

B) Cast iron and copper pipes in other locations: 18 inches.
- Excavate to undisturbed earth: cut level and form true. Remove debris, rubbish and soft material (such as mud). Where rock is encountered, undercut trenches 6-inches and fill with well tamped neutral sand and pea gravel to proper pipe elevation, during excavation free of standing water. Undercut trench 6-inches and install piping in a 6-inch neutral sand envelope.
- Backfill to a point 12-inches above top of piping with earth (excavated material may be used) free of clay, debris, rubbish, rocks, or clods over 4-inches in the greatest dimension. Backfill above 12-inches from top of piping may be with excavated material. Apply backfill by hand in 6-inch deep layers the full width of the trench. Moisten each layer (do not flood or puddle), and hand tamp to a minimum 90 percent compaction before proceedign with the next layer of backfill.
- Do not excavate under foundations or footings except in manner permitted by the architect. Do not backfill until installed piping has been successfully tested.
- All sewer and drainage piping shall be installed as per CPC 2010. Slope shall be minimum 1/4 inch per foot drop (unless noted otherwise).
- Condensate drain pipes shall be insulated with a minimum layer of approved insulation material per the 2010 CPC.



WATER SUPPLY LINES

ISOMETRIC



D.W.V. ISOMETRICS

ISOMETRIC

Plumbing Fixture Schedule

NOTE: -- Owner to select exact fixtures to be in accordance to 2010 CPC & CGBC

Tag	Description	min. pipe sizes				Remarks
		cw	hw	vent	sewer	
WC.	Water closet Tank type Floor mounted Accessible	3/4"	n.a.	2"	4"	"American Standard" Cadet 2168.100 vitreous china tank type floor mounted water closet pressure assisted 16 GPF with Osonite #96 open front seat-less cover. Meets ANSI 112.19 low consumption. Actuator to be located per ADA.
LAV	Lavatory Wall mount accessible	1/2"	1/2"	1 1/2"	2"	"American Standard" Lucerne Single-hole model 0356.421, 20"x18" wall mounted, vitreous china front overflow, concealed arm support. Provide Grid Drain. Faucet: "Chicago" 333-665 Self closing type faucet. Mount per ADA Reqmt's

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Ph. 760-887-1080
P.O. Box 693
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CUSTOM PROJECT FOR:

**NextEra Energy Resources
SEGS 8-9 Solar Facility
43880 Harper Lake Road
Hinkley, CA. 92347**

C.P.C. PLUMBING NOTES

- All plumbing work and materials shall meet the requirements of the 2010 Edition of the California Plumbing Code otherwise required by the Department of Building and Safety.
- Contractor shall furnish and install all backflow prevention devices required by agencies having jurisdiction.
- Drainage system (SEPTIC)

A) All materials shall comply with Section 7010 Materials.

B) Drainage piping shall be sloped per Section 70B0 Grade of Horizontal Drainage Piping.
- Water distribution

A) Water pipe and fittings shall be copper per Section 624.2.
- Insulate all hot water pipes, condensate drains and drain assemblies under handicap lavatories as per Title 24.

Waste Fixture Calc.:

WASTE FIXTURE UNITS		<u>Occupant Loads:</u>		<u>Office Fixts. Required:</u>		
W.C.	6 F.U.	1600 Sq. Ft. Offices/200 = 8 Occupants		One Unisex restroom is required.		
LAV.	1 F.U.	Per Sect. 412.3 Exception (2):		One Unisex restroom is provided.		
SINK	2 F.U.	In occupancies serving ten (10) or fewer people, one toilet facility, designed for no more than one person at a time, shall be permitted for use by both sexes.		<u>Fixture</u>	<u>Men</u>	<u>Women</u>
TOTAL F.U.:		9 F.U.		W.C.	1	1
TOTAL DEV. LENGTH:		60 FT.		LAVS.	1	1
				URINALS	n.a.	
				<u>Office Fixts. Provided:</u>		
				<u>Fixture</u>	<u>Men</u>	<u>Women</u>
				W.C.	1	1
				LAVS.	1	1
				URINALS	n.a.	
				<u>Note:</u>		
				All Occupant Loads per Table A of 2010CPC Plumbing Fixture Count from Table 4-1 of 2010 CPC – Office & Warehouse Occupancies		

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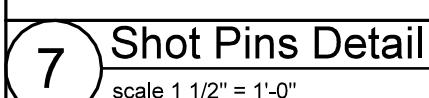
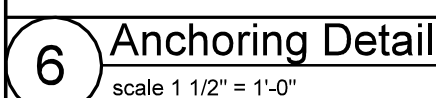
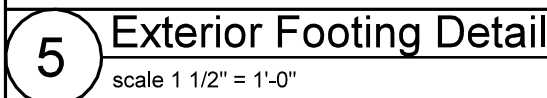
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OF 8 DRAWINGS

DRAWING CONTENTS
Water Supply Lines & DWW Isometrics

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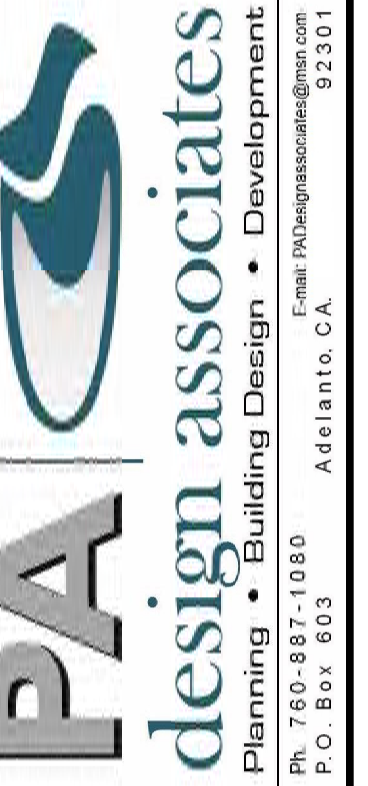


3 Detail
scale 1 1/2" = 1'-0"

4 Matt Column Footing Adjacent to Existing

1 Matt Column Footings at Exterior
scale 1 1/2" = 1'-0"

2 Matt Column Footings at Corners
scale 1 1/2" = 1'-0"

[illegible]

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SEGS 8-9 Solar Facility
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S2
8 DRAWINGS

Shop Primed Steel – All structural members of the Metal Building System not fabricated of corrosion resistant material or protected by a corrosion resistant coating are painted with one coat of shop primer meeting the performance requirements of SSPC Paint Specification No. 15. All surfaces to receive shop primer are cleaned of loose rust, loose mill scale and other foreign matter by using, as a minimum, the hand tool cleaning method SSPC–SP2 (Steel Structures Painting Council) prior to painting. The coat of shop primer is intended to protect the steel framing for only a short period of exposure to ordinary atmospheric conditions. Shop Primed steel stored in the field pending erection should be kept free of the ground and so positioned as to minimize water–holding pockets, dust, mud and other contamination of the primer film. Repairs of damage to primed surfaces and/or removal of foreign material due to improper field storage or site conditions are not the responsibility of the manufacturer. The Manufacturer is not responsible for deterioration of the shop coat of primer or corrosion that may result from exposure to atmospheric and environmental conditions, nor the compatibility of the primer to any field applied coating. Minor abrasions to the shop coat (including galvanizing) caused by handling, loading, shipping unloading and erection after painting or galvanizing are unavoidable. Touch–up of these minor abrasions is the responsibility of the End Customer (MBMA 06 IV 4.2.4)

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, ASTM A1011 SS, or ASTM A1011 HSLAS with a minimum yield point of 50 ksi. Material properties of hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with a minimum specified yield point of 50 ksi. Hot rolled angles, or other than flange braces, conform to ASTM 36 minimum. Hollow structural shaped conform to ASTM A500 grade b, minimum yield point is 42 ksi for round HSS and 46 ksi for rectangular HSS. Material properties of cold form light gage steel members conform to the requirements of ASTM A1011 SS Grade 55 or ASTM A1011 HSLAS Class 1 Grade 55, with a minimum yield point of 55 ksi.

The manufacturer does not assume any responsibility for the erection nor field supervision of the structure and or any special inspections (including inspection of the high strength bolts or field welds) as required during erection. The coordination and the costs associated for setting up and Special Inspections are the responsibility of the Erector, Owner, Architect, or Engineer of Record.

Loads, as noted, are given within order documents and are applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the manufacturer nor the certifying engineer declares or attests that the loads as designated are proper for the local provisions that may apply or for site specific parameters. The manufacturer's Engineer's certification is limited to design loads supplied by an Architect and/or engineer of record for the overall construction project.

X-bracing (if applicable) is to be installed to a taut condition with all slack removed. Do not tighten beyond this state.

BASIC E
RESPON
SYSTEM
SEISMIC
BLDG D

THE BUILDER IS TO CONFIRM THAT THESE LOADS COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT.

FRAME / ROOF LIVE LOAD 12/15.5/20.00 PSF

WIND LOAD	
BASIC WIND SPEED	85 MPH
WIND IMPORTANCE FACTOR (I _w)	1.00
WIND EXPOSURE CATEGORY	C
TOPOGRAPHICAL FACTOR	1.0

ZONE 4, COMPONENT WIND LOAD $\leq 10\text{FT}^2$

ZONE 5, COMPONENT WIND LOAD $< 10\text{FT}^2$

AS PER ASCE 7-05; FIG. 6-11A (FOR IBC 06/09 BASE CODE)
AS PER ASCE 7-98; FIG. 6-5A (FOR IBC 03 BASE CODE)

5-MINUTE DURATION, 5-YEAR RECURRENT (1)	<u>4.0000</u>	IN/HOUR
5-MINUTE DURATION, 25-YEAR RECURRENT (2)	<u>6.0000</u>	IN/HOUR

OCCUPANCY CATEGORY	II – Normal
SEISMIC IMPORTANCE FACTOR (I _e)	1.00
S ₈ 1.5580	S _{D8} 1.0000
S1 0.6770	S _{D1} 0.6770
SITE CLASS	D
SEISMIC DESIGN CATEGORY	D

	TRANSVERSE	LONGITUDINAL	
CE RESISTING SYSTEM*	C4	FRONT B4	BACK B4
MODIFICATION COEFFICIENT(R)	3.5	3.25	3.25
PER-STRENGTH FACTOR(q_0)	3.0000	2.0000	2.0000
SPONSE COEFFICIENT(c_0)	0.286	0.308	0.30
BASE SHEAR (V)	3.03 (k)	2.83 (k)	

BASIC FORCE RESISTING SYSTEM*
C4. STEEL ORDINARY MOMENT FRAME
B4. STEEL ORDINARY CONCENTRIC BRACED FRAMES
H. STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
G3. INVERTED PENDULUM SYSTEMS CANTILEVERED COLUMN SYSTEMS

ISSUE	PAGE	DESCRIPTION
0	C1	COVER SHEET
0	F1	ANCHOR BOLT PLAN
0	F2	ANCHOR BOLT REACTIONS
0	F3	ANCHOR BOLT DETAILS
0	E1	ROOF FRAMING PLAN
0	E2	FRONT SIDEWALL
0	E3	BACK SIDEWALL
0	E4	LEFT ENDWALL
0	E5	RIGHT ENDWALL
0	E6/E7	FRAME CROSS SECTION
0	DET1-3	STANDARD DETAILS
0		WALK DOOR DETAILS
0		STANDARD WELD DETAILS
0		3 SIDED FRAMED OPENING
0		4 SIDED FRAMED OPENING

THESE DRAWINGS, BEING FOR APPROVAL, ARE BY DEFINITION NOT FINAL, AND ARE FOR CONCEPTUAL REPRESENTATION ONLY. THEIR PURPOSE IS TO CONFIRM PROPER INTERPRETATION OF THE PROJECT DOCUMENTS. ONLY DRAWINGS ISSUED "FOR ERECTOR INSTALLATION" CAN BE CONSIDERED AS COMPLETE.

THESE DRAWINGS, BEING FOR PERMIT, ARE BY
DEFINITION NOT FINAL. ONLY DRAWINGS ISSUED
"FOR ERECTOR INSTALLATION" CAN BE CONSIDERED
AS COMPLETE.

FINAL DRAWINGS FOR CONSTRUCTION.

FOR QUESTIONS OR ASSISTANCE
CONCERNING ERECTION CALL:
800-404-6974
MONDAY - FRIDAY 7:30AM TO 5:00PM

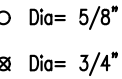
THIS CERTIFICATION COVERS PARTS MANUFACTURED
AND DELIVERED BY THE MANUFACTURER ONLY,
AND EXCLUDES PARTS SUCH AS DOORS, WINDOWS,
FOUNDATION DESIGN AND ERECTION OF THE BUILDING.

THESE DRAWINGS AND THE METAL BUILDING SYSTEM
THEY REPRESENT ARE THE PRODUCT OF AN AFFILIATE
OF NCI GROUP, INC. - 10943 N. SAM HOUSTON
PARKWAY W., HOUSTON, TX 77064. THE PROFESSIONAL
ENGINEER WHOSE SEAL APPEARS HEREON IS EMPLOYED
BY AN AFFILIATE OF NCI GROUP, INC. AND IS NOT THE
ENGINEER-OF-RECORD FOR THE OVERALL PROJECT.

CAD 12/13/12

BUILDING SIZE: 40'-0" x 40'-0" x 12'-0" 1.0:12

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN	GENERAL STEEL CORPORATION BUILDER SERVICES GROUP 10639 W BRADFORD RD LITTLETON, CO 80127-4208 800-404-6974							
0	12/12/12	FOR ERECTOR INSTALLATION	ASF	SG	CAD								
						PROJECT: CREW CONSTRUCTION							
						CUSTOMER: CREW CONSTRUCTION					OWNER: CHUCK CREW		
						LOCATION: HINKLEY, CA 92347							
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSU
							12/12/12	N.T.S.	1	A	0816-Q118965 12-B-90681	C1	0



ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN	<div>GENERAL STEEL CORPORATION</div> <div>BUILDER SERVICES GROUP 10639 W BRADFORD RD</div> <div>LITTLETON, CO 80127-4208</div>													
0	12/12/12	FOR ERECTOR INSTALLATION	ASF	SG	CAD														
						PROJECT: CREW CONSTRUCTION													
						CUSTOMER: CREW CONSTRUCTION							OWNER: CHUCK CREW						
						LOCATION: HINKLEY, CA 92347													
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE						
							12/12/12	N.T.S.	1	A	0816-Q118965	F1	0						

GENERAL NOTES

1. THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
2. REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN.
3. THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS. HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN
4. THE METAL BUILDING MANUFACTURER IS RESPONSIBLE FOR THE DESIGN OF THE ANCHOR BOLT DIAMETER ONLY TO PERMIT THE TRANSFER OF FORCES BETWEEN THE BASE PLATE AND THE ANCHOR BOLT IN SHEAR, BEARING AND TENSION, BUT IS NOT RESPONSIBLE FOR THE ANCHOR BOLT EMBEDMENT FOR TRANSFER OF FORCES TO THE FOUNDATION. THE METAL BUILDING MANUFACTURER DOES NOT DESIGN AND IS NOT RESPONSIBLE FOR THE DESIGN, MATERIAL AND CONSTRUCTION OF THE FOUNDATION EMBEDMENTS. THE END USE CUSTOMER SHOULD ASSURE HIMSELF THAT ADEQUATE PROVISIONS ARE MADE IN THE FOUNDATION DESIGN FOR LOADS IMPOSED BY COLUMN REACTIONS OF THE BUILDING, OTHER IMPOSED LOADS, AND BEARING CAPACITY OF THE SOIL AND OTHER CONDITIONS OF THE BUILDING SITE. IT IS RECOMMENDED THAT THE ANCHORAGE AND FOUNDATION OF THE BUILDING BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER EXPERIENCED IN THE DESIGN OF SUCH STRUCTURES, (SECTION A3 MBMA 2006 METAL BUILDING SYSTEMS MANUAL)
5. BOTTOM OF ALL BASE PLATES ARE AT THE SAME ELEVATION. (UNLESS NOTED)
6. ANCHOR RODS ARE ASTM F1554 GRADE 36 MATERIAL UNLESS NOTED OTHERWISE.

BUILDING BRACING REACTIONS

Loc	Wall Line	Col Line	± Reactions (k)				Panel Shear (lb/ft)
			Wind		Seismic		
			Horz	Vert	Horz	Vert	
L_EW	1		Rigid Frame At Endwall				
F_SW	A	1,2	1.4	0.8	1.4	0.8	
R_EW	3	A,B	0.8	0.8	0.6	0.6	
B_SW	D	2,1	1.4	0.8	1.4	0.8	

ENDWALL COLUMN:

BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Wind_P Horz	Wind_S Horz
1	C	0.0	-1.0	1.1
1	B	0.0	-1.0	1.1

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	---Floor---		---Drift---		---Slide---		Rafter ---Wind_L---		Rafter ---Wind_R---	
3	A	0.1	0.0	0.9	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
3	B	0.4	0.1	3.1	0.0	0.8	0.0	0.7	0.6	-0.7	0.0	-1.6	0.6	-2.1
3	C	0.4	0.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	0.0	-2.3
3	D	0.1	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	0.0	-0.7

Frm Line	Col Line	---Wind_L---		---Wind_R---		Wind_P Horz	Wind_S Horz	---LnWind1---		---LnWind2---		Seis_L Vert	Seis_R Vert	---Rain---	
3	A	0.6	-1.3	0.6	-1.0	0.6	0.0	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.8
3	B	0.0	-1.6	0.0	-0.9	-0.9	1.0	0.6	-2.4	0.6	-1.7	0.0	-0.1	0.8	-0.8
3	C	0.0	-1.4	0.0	-2.3	-0.9	1.0	0.0	-1.8	0.0	-1.1	0.0	0.0	0.0	0.0
3	D	0.0	-0.4	0.0	-0.7	0.0	0.0	0.0	-0.5	0.0	-0.3	0.0	0.0	0.0	0.0

Frm Line	Col Line	-LWIND1_L-		-LWIND1_R-		-LWIND2_L-		-LWIND2_R-	
3	A	0.6	-0.8	0.0	0.6	0.4	-0.7	0.0	0.4
3	B	0.0	0.4	0.6	-0.5	0.0	0.3	0.4	-0.4
3	C	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	-0.2
3	D	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	-0.3

ENDWALL COLUMN:

ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc_Bolt Qty	Dia	Base_Plate (in)		Thick	Grout (in)
				Width	Length		
1	C	2	0.625	7.000	8.000	0.250	0.0
1	B	2	0.625	7.000	8.000	0.250	0.0
3	A	2	0.625	7.000	8.000	0.250	0.0
3	B	2	0.625	7.000	8.000	0.250	0.0
3	C	2	0.625	7.000	8.000	0.250	0.0
3	D	2	0.625	7.000	8.000	0.250	0.0

NOTES FOR REACTIONS

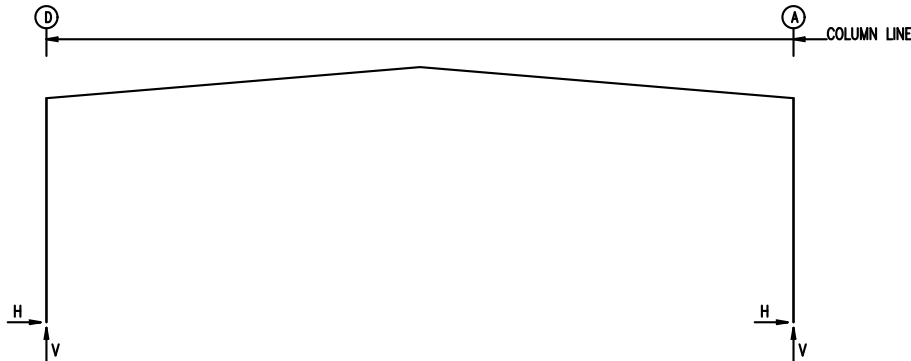
BUILDING REACTIONS ARE BASED ON THE FOLLOWING BUILDING DATA:

WIDTH (FT)	=	40
LENGTH (FT)	=	40
EAVE HEIGHT (FT)	=	12 / 12
ROOF SLOPE (rise/12)	=	1.0:12 / 1.0:12
DEAD LOAD (psf)	=	2.000
COLLATERAL LOAD (psf)	=	0.5
ROOF LIVE LOAD (psf)	=	20.00
FRAME LIVE LOAD (psf)	=	12 / 15.5
ROOF SNOW LOAD (psf)	=	0
GROUND SNOW LOAD (psf)	=	0.0000
WIND SPEED (MPH)	=	85
WIND CODE	=	CBC 10
EXPOSURE	=	C
CLOSED/OPEN	=	Closed
IMPORTANCE - WIND	=	1.00
IMPORTANCE - SEISMIC	=	1.00
SEISMIC ZONE	=	D
SEISMIC COEFF (Cs)	=	1.500

ANCHOR BOLT SUMMARY

Qty	Locate	Dia (in)	Type	Proj (in)
○ 12	Endwall	5/8"	F1554	2.00
⊗ 16	Frame	3/4"	F1554	2.50

FRAME LINES: 1 2



RIGID FRAME:

ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc_Bolt Qty	Dia	Base_Plate (in)		Thick	Grout (in)
				Width	Length		
1	D	4	0.750	6.000	10.50	0.375	0.0
1	A	4	0.750	6.000	10.50	0.375	0.0

RIGID FRAME:

ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc_Bolt Qty	Dia	Base_Plate (in)		Thick	Grout (in)
				Width	Length		
2	D	4	0.750	6.000	10.50	0.375	0.0
2	A	4	0.750	6.000	10.50	0.375	0.0

RIGID FRAME:

BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	---Dead---		---Collateral---		---Live---		---Wind_L1---		---Wind_R1---		---Wind_L2---	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
2	D	0.6	1.4	0.1	0.3	2.8	6.0	-3.6	-5.8	-0.2	-3.7	-3.4	-3.4
2	A	-0.6	1.4	-0.1	0.3	-2.8	6.0	0.2	-3.7	3.6	-5.8	0.0	-1.3

Frame Line	Column Line	---Wind_R2---		---LnWind1---		---LnWind2---		---Seismic_L-		---Seismic_R-		---LnSeis---	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
2	D	0.0	-1.3	-1.5	-6.6	-1.1	-4.2	-1.0	-0.6	1.0	0.6	0.0	-1.0
2	A	3.4	-3.4	1.5	-6.6	1.1	-4.2	-1.0	0.6	1.0	-0.6	0.0	-1.0

Frame Line	Column Line	-LWIND1_L2E-		-LWIND1_R2E-		-LWIND2_L2E-		-LWIND2_R2E-	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
2	D	-0.1	-0.9	-0.1	-0.1	-0.1	-0.9	-0.1	-0.1
2	A	0.1	-0.1	0.1	-0.9	0.1	-0.1	0.1	-0.9

Frame Line	Column Line	---Dead---		---Collateral---		---Live---		---Wind_L1---		---Wind_R1---		---Wind_L2---	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1	D	0.3	0.8	0.1	0.1	1.6	3.3	-1.6	-2.5	-0.1	-1.6	-1.4	-1.4
1	A	-0.3	0.8	-0.1	0.1	-1.6	3.3	0.1	-1.6	1.6	-2.5	0.0	-0.5

Frame Line	Column Line	---Wind_R2---		---LnWind1---		---LnWind2---		---Seismic_L-		---Seismic_R-		---LnSeis---	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1	D	0.0	-0.5	-0.7	-3.2	-0.5	-2.2	-0.5	-0.3	0.5	0.3	0.0	-1.0
1	A	1.4	-1.4	0.7	-3.2	0.5	-2.2	-0.5	0.3	0.5	-0.3	0.0	-1.0

Frame Line	Column Line	-LWIND1_L2E-		-LWIND1_R2E-		-LWIND2_L2E-		-LWIND2_R2E-	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1	D	0.0	-0.4	-0.1	0.0	0.0	-0.4	-0.1	0.0
1	A	0.1	0.0	0.0	-0.4	0.1	0.0	0.0	-0.4

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	12/12/12	FOR ERECTOR INSTALLATION	ASF	SG	CAD

GENERAL STEEL CORPORATION
BUILDER SERVICES GROUP 10639 W BRADFORD RD
LITTLETON, CO 80127-4208

PROJECT: CREW CONSTRUCTION

CUSTOMER: CREW CONSTRUCTION

OWNER: CHUCK CREW

LOCATION: HINKLEY, CA 92347

CAD

DATE

SCALE

PHASE

BUILDING ID

JOB NUMBER

SHEET NUMBER

ISSUE

12/12/12

N.T.S.

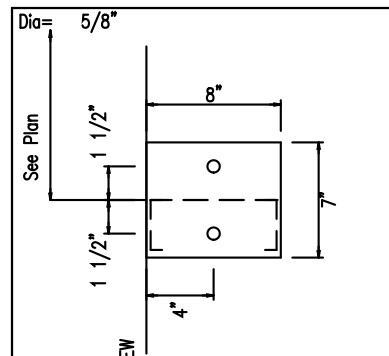
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A

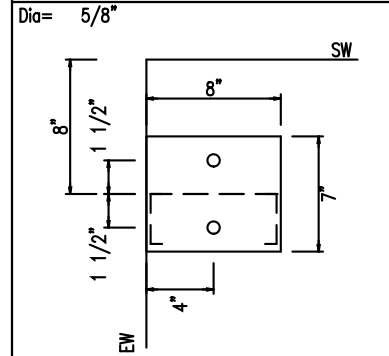
0816-Q118965

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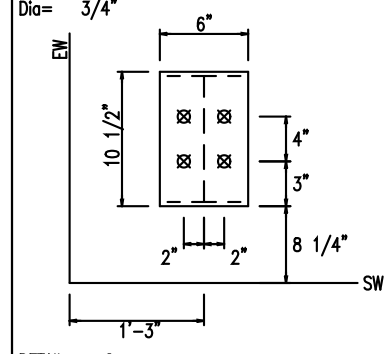
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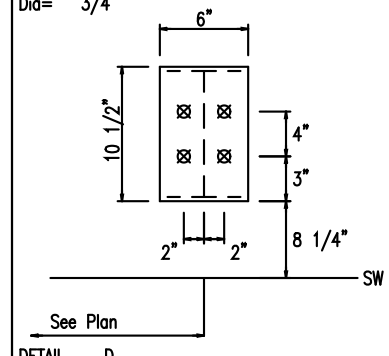
DETAIL A



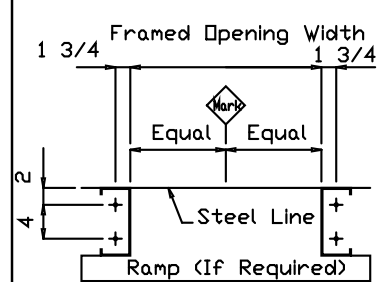
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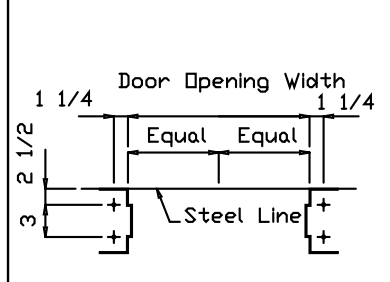


DETAIL	C
Ratio	3/4"



DETAIL	D

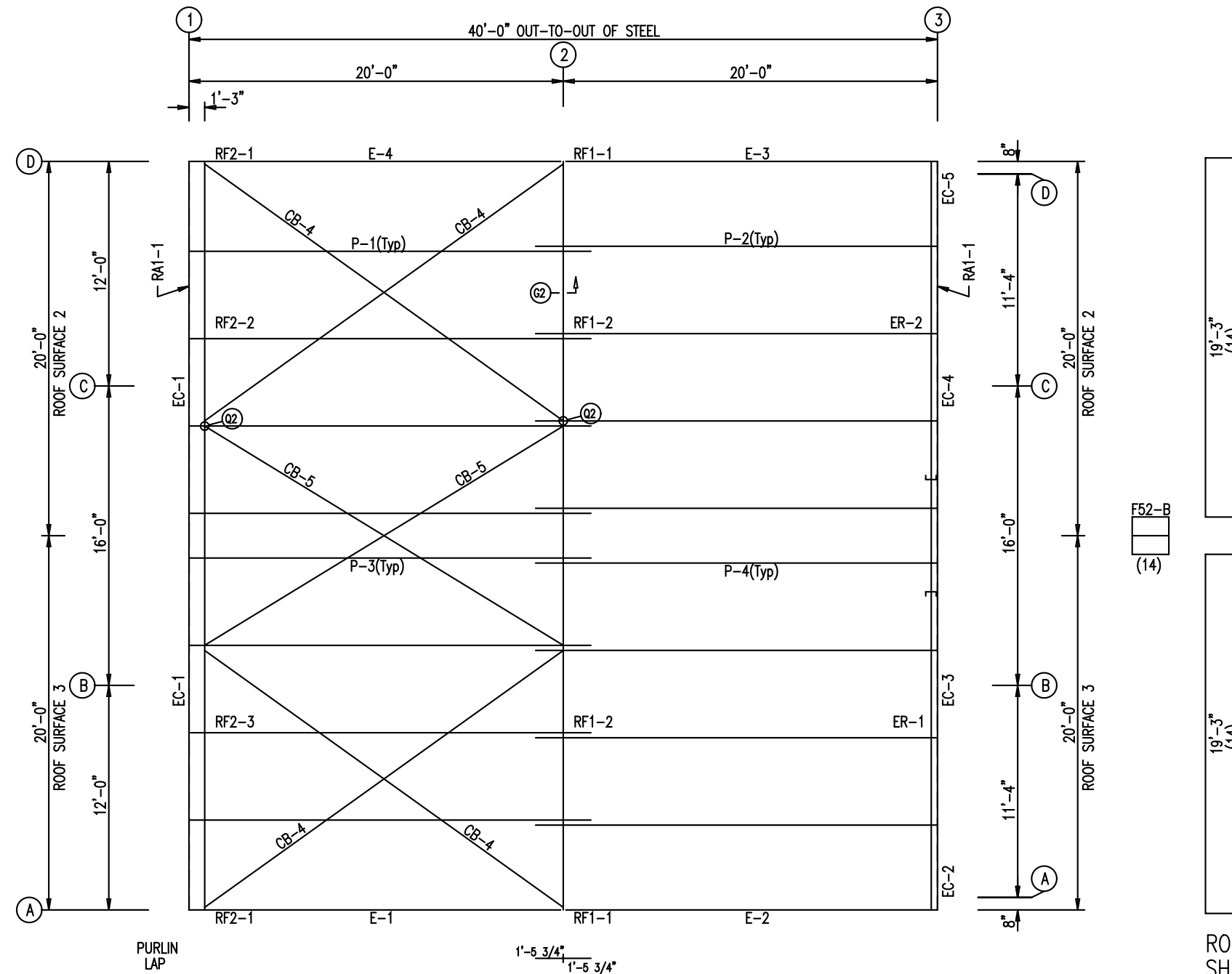




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ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN	GENERAL STEEL CORPORATION BUILDER SERVICES GROUP 10639 W BRADFORD RD LITTLETON, CO 80127-4208							
0	12/12/12	FOR ERECTOR INSTALLATION	ASF	SG	CAD								
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						CUSTOMER: CREW CONSTRUCTION				OWNER: CHUCK CREW			
						LOCATION: HINKLEY, CA 92347							
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
							12/12/12	N.T.S.	1	A	0816-Q118965	F3	0

MEMBER TABLE		
ROOF PLAN		
MARK	PART	LENGTH
P-1	8X25Z16	21'-5 1/2"
P-2	8X25Z16	21'-5 1/2"
P-3	8X25Z16	21'-5 1/2"
P-4	8X25Z16	21'-5 1/2"
E-1	8ES1L14	19'-11 1/2"
E-2	8ES1L14	19'-11 1/2"
E-3	8ES1L14	19'-11 1/2"
E-4	8ES1L14	19'-11 1/2"
CB-4	WC4	22'-8"
CB-5	WC4	22'-4"



ROOF FRAMING PLAN

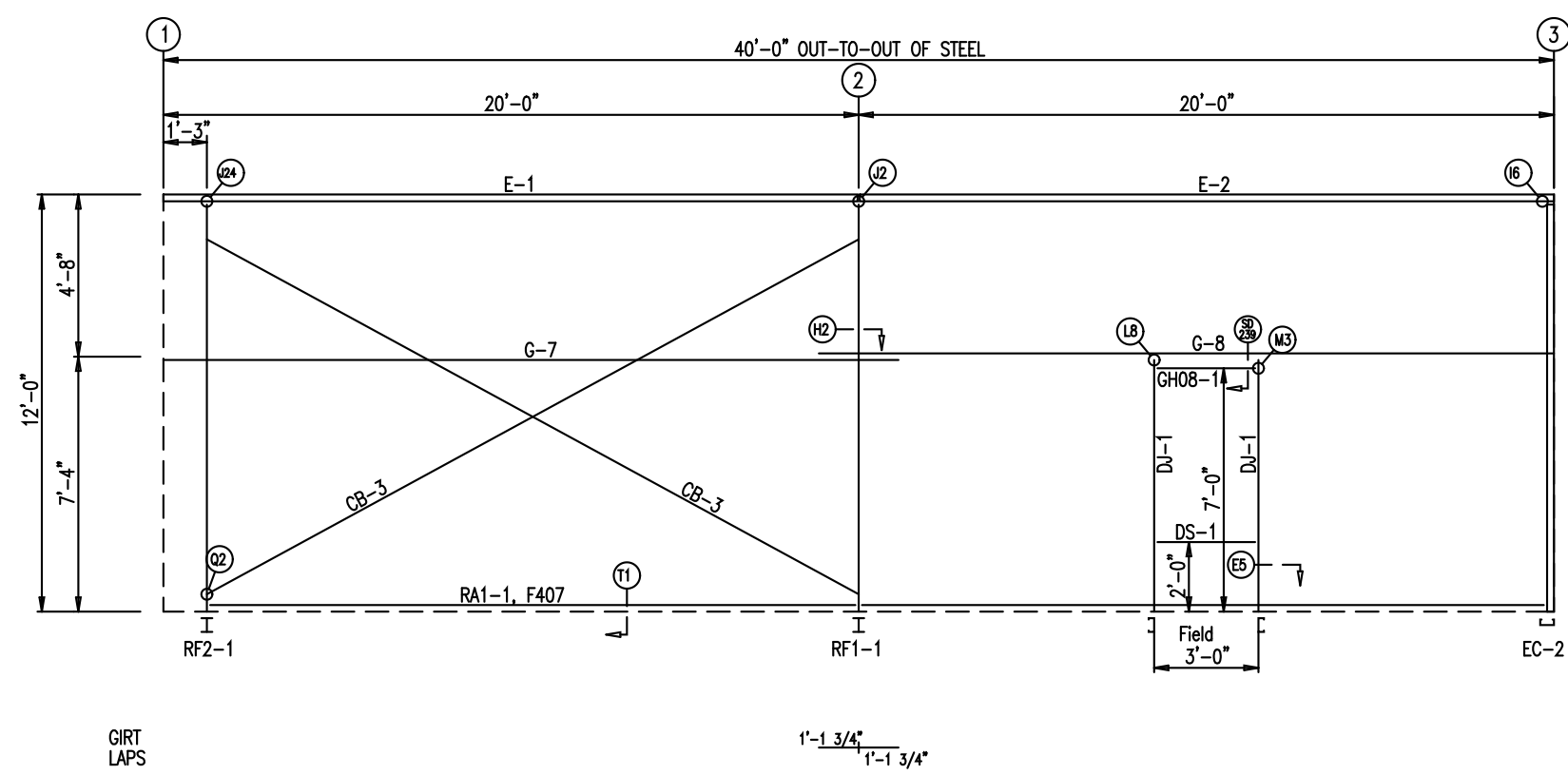
ROOF SHEETING

PANELS: 26 Ga. PR
Galvalume

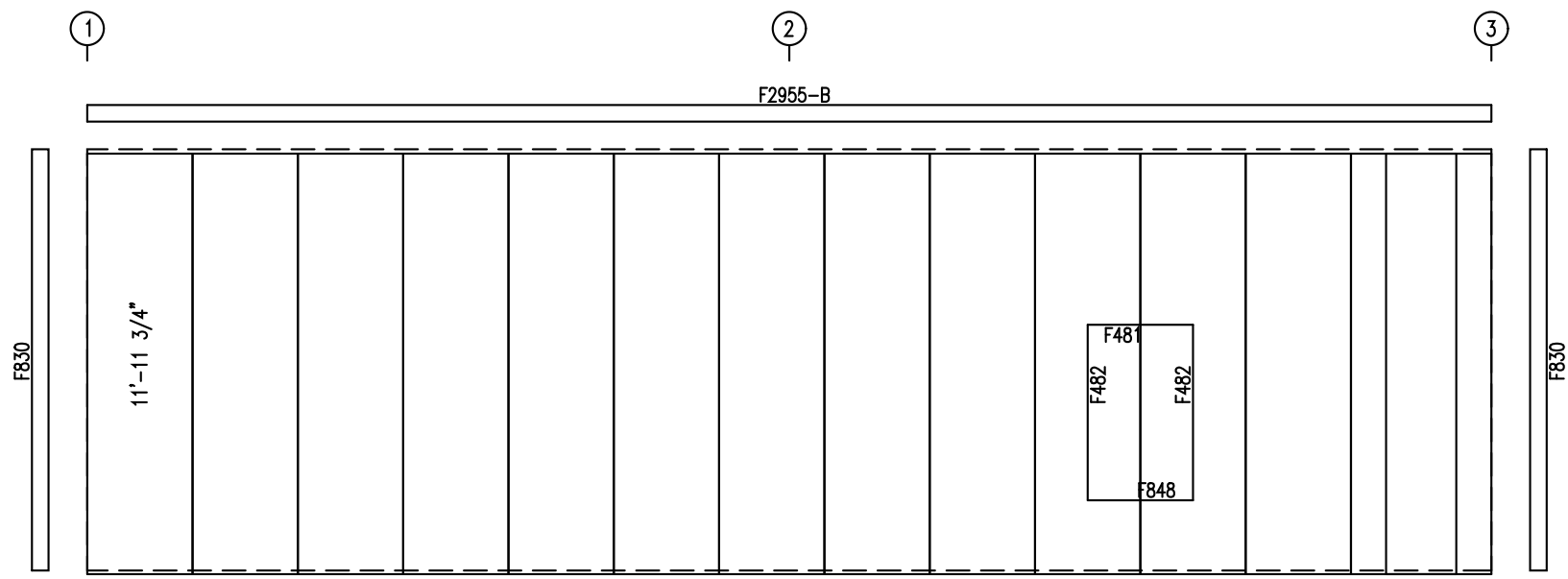
GENERAL NOTES:

1. INSTALL ALL PURLIN AND FLANGE BRACES (FB) AS SHOWN.
2. ROOF PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. STRUT PURLINS, IF PROVIDED, MUST BE INSTALLED AND FASTENED TO ROOF SHEETING PER "PBR" PANEL ROOF DETAIL.
4. DO NOT ADD ANY ADDITIONAL ROOF OPENINGS WITHOUT BUILDING MANUFACTURER APPROVAL OR PROFESSIONAL ENGINEER APPROVAL.
5. DO NOT STACK SHEET BUNDLES ON ROOF. ONLY RAISE INDIVIDUAL SHEETS AS NEEDED.
6. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN	GENERAL STEEL CORPORATION BUILDER SERVICES GROUP 10639 W BRADFORD RD LITTLETON, CO 80127-4208							
0	12/12/12	FOR ERECTOR INSTALLATION	ASF	SG	CAD								
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						CUSTOMER: CREW CONSTRUCTION				OWNER: CHUCK CREW			
						LOCATION: HINKLEY, CA 92347							
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
							12/12/12	N.T.S.	1	A	0816-Q118965	E1	0



SIDEWALL FRAMING: FRAME LINE A



SIDEWALL SHEETING & TRIM: FRAME LINE A

PANELS: 26 Ga. PR - Saddle Tan

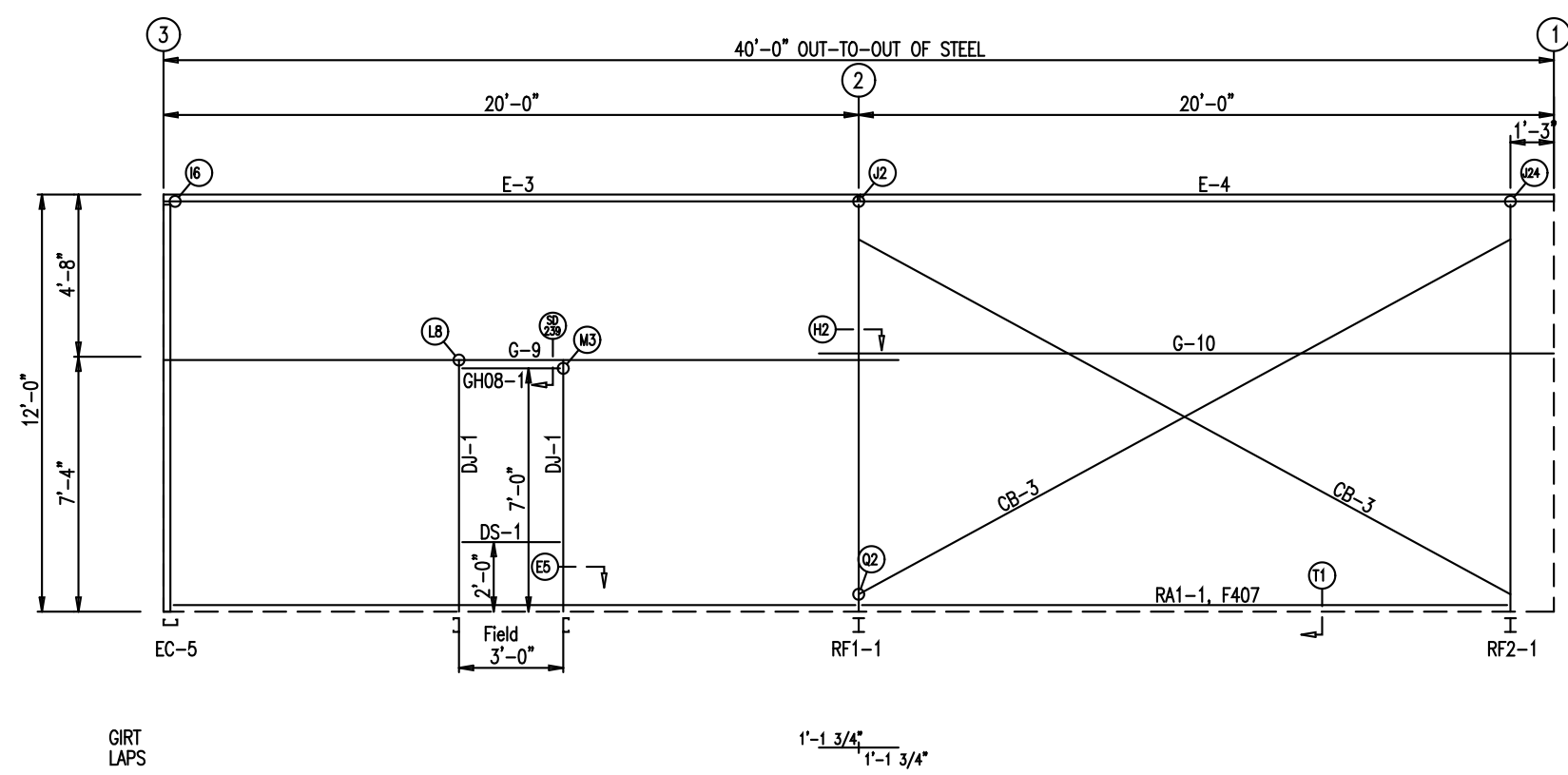
MEMBER TABLE		
FRAME LINE A		
MARK	PART	LENGTH
DJ-1	8F25C16	7'-4"
GH08-1	GH08	3'-0"
DS-1	8F25C16	3'-0"
E-1	8ES1L14	19'-11 1/2"
E-2	8ES1L14	19'-11 1/2"
G-7	8X25Z16	21'-1 1/2"
G-8	8X25Z16	21'-1 1/2"
CB-3	WC4	22'-2"

GENERAL NOTES:

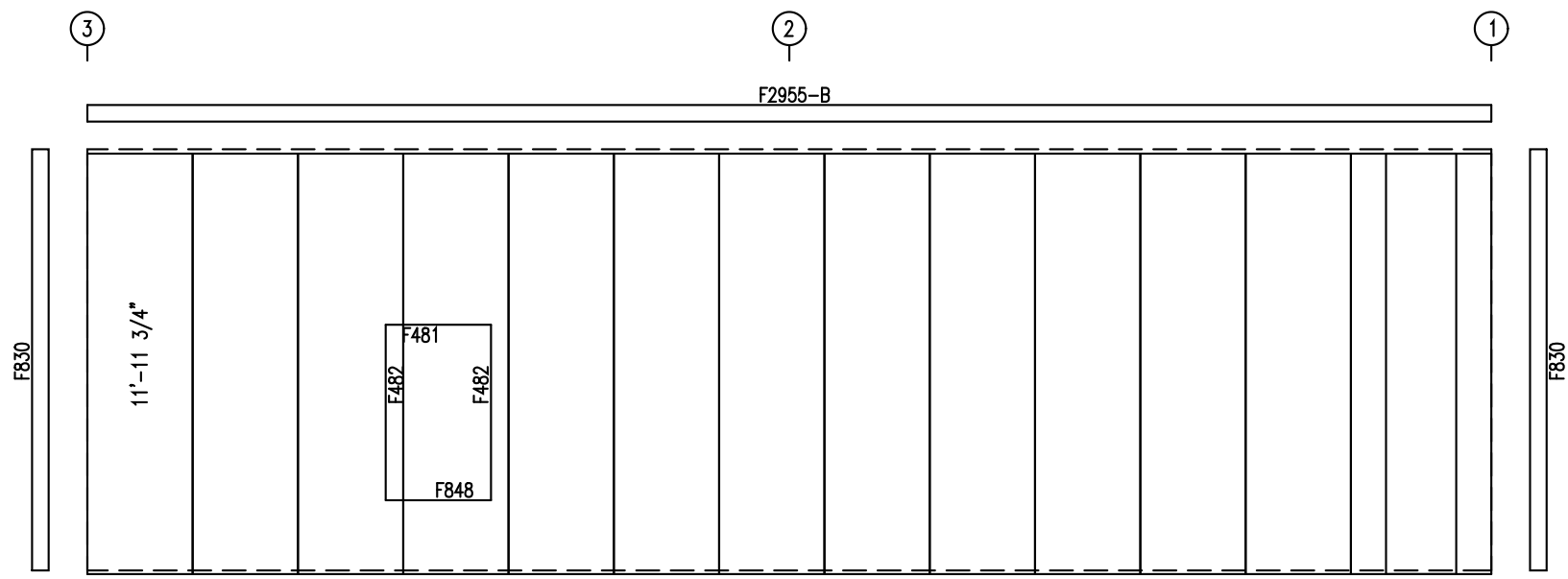
1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.
4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	12/12/12	FOR ERECTOR INSTALLATION	ASF	SG	CAD

GENERAL STEEL CORPORATION							
BUILDER SERVICES GROUP 10639 W BRADFORD RD							
LITTLETON, CO 80127-4208							
PROJECT: CREW CONSTRUCTION							
CUSTOMER: CREW CONSTRUCTION					OWNER: CHUCK CREW		
LOCATION: HINKLEY, CA 92347							
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	12/12/12	N.T.S.	1	A	0816-Q118965	E2	0



SIDEWALL FRAMING: FRAME LINE D



SIDEWALL SHEETING & TRIM: FRAME LINE D

PANELS: 26 Ga. PR - Saddle Tan

MEMBER TABLE		
FRAME LINE D		
MARK	PART	LENGTH
DJ-1	8F25C16	7'-4"
GH08-1	GH08	3'-0"
DS-1	8F25C16	3'-0"
E-3	8ES1L14	19'-11 1/2"
E-4	8ES1L14	19'-11 1/2"
G-9	8X25Z16	21'-1 1/2"
G-10	8X25Z16	21'-1 1/2"
CB-3	WC4	22'-2"

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.
4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

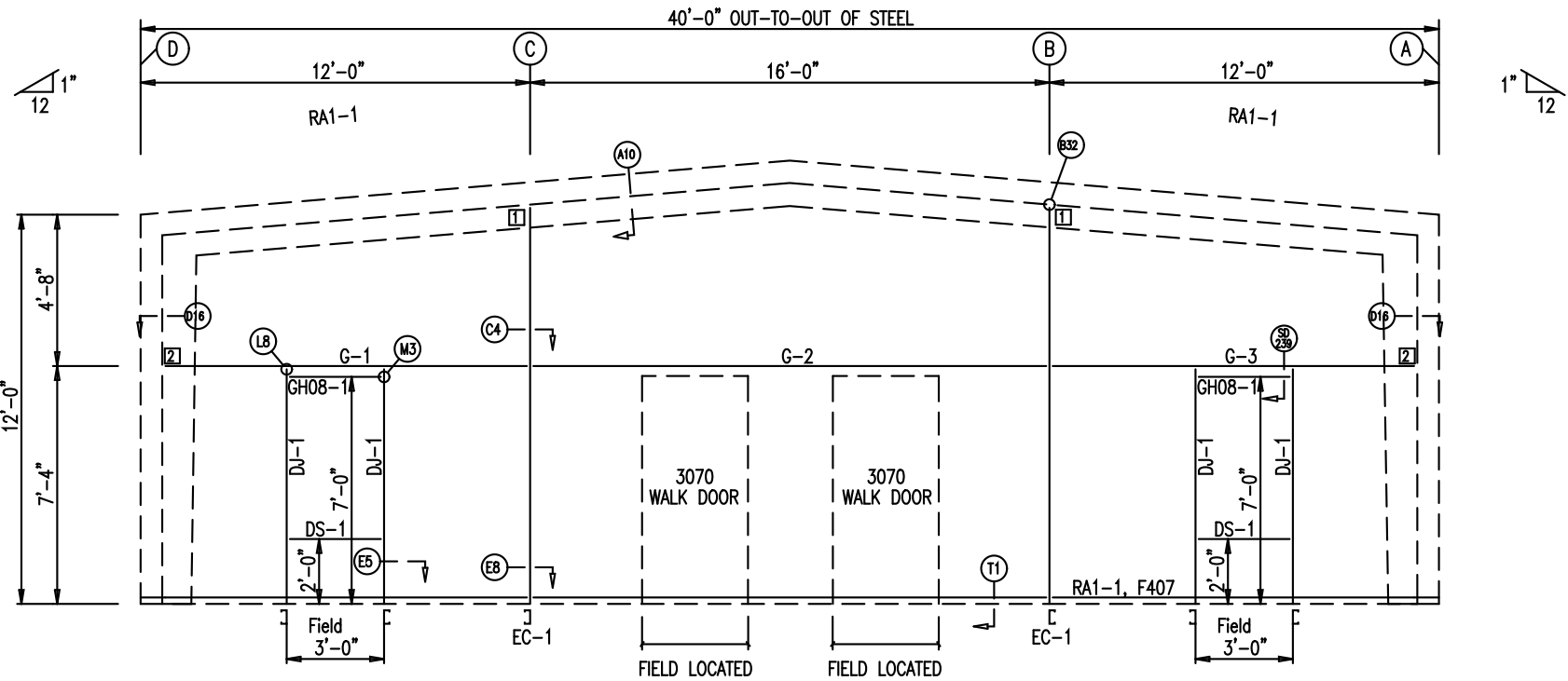
ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
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GENERAL STEEL CORPORATION							
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CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	12/12/12	N.T.S.	1	A	0816-Q118965	E3	0

BOLT TABLE					
FRAME LINE 1					
LOCATION	WASHER	QUAN	TYPE	DIA	LENGTH
Columns/Raf	4	4	A325	5/8"	1 3/4"

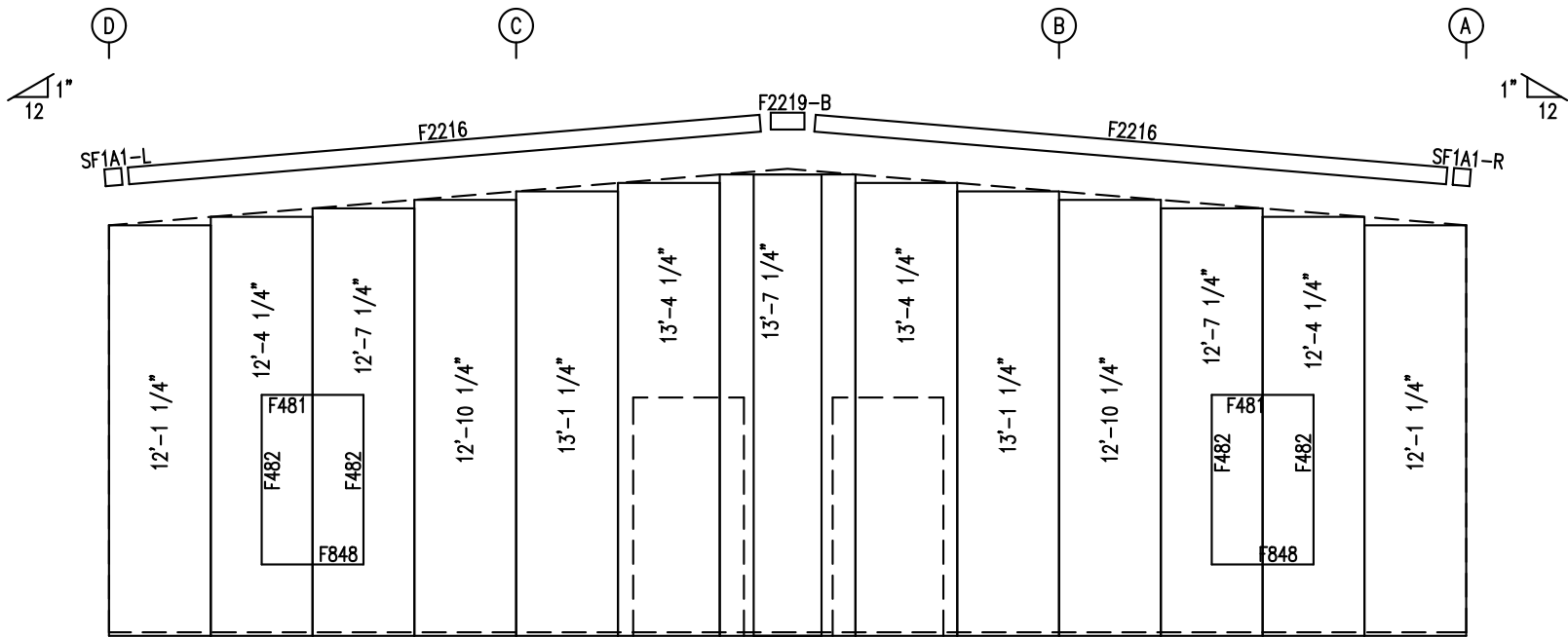
MEMBER TABLE		
FRAME LINE 1		
MARK	PART	LENGTH
EC-1	8F25C16	12'-2 9/16"
DJ-1	8F25C16	7'-4"
GH08-1	GH08	3'-0"
DS-1	8F25C16	3'-0"
G-1	8X25Z16	10'-11 3/4"
G-2	8X25Z16	15'-11 1/2"
G-3	8X25Z16	10'-11 3/4"

CONNECTION PLATES	
FRAME LINE 1	
ID	MARK/PART
1	SC530
2	SC-484



USE (1) HARDENED
WASHER PER EACH
5/8"Ø BOLTS A325 AND UP.
TYP.UNLESS NOTED

ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Ga. PR - Saddle Tan

- GENERAL NOTES:
1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
 2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
 3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.
 4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	12/12/12	FOR ERECTOR INSTALLATION	ASF	SG	CAD

GENERAL STEEL CORPORATION
BUILDER SERVICES GROUP 10639 W BRADFORD RD
LITTLETON, CO 80127-4208

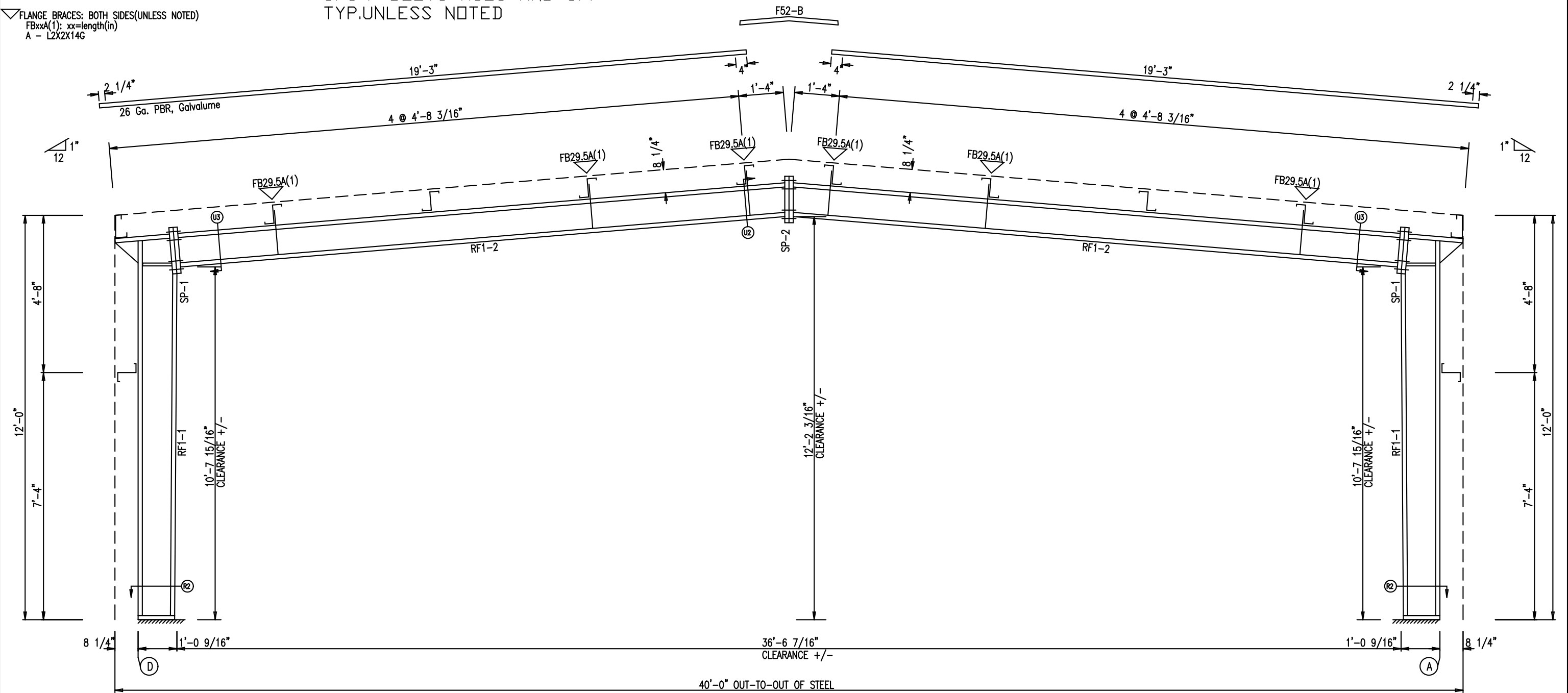
PROJECT: CREW CONSTRUCTION		OWNER: CHUCK CREW	
CUSTOMER: CREW CONSTRUCTION			
LOCATION: HINKLEY, CA 92347			
CAD	DATE 12/12/12	SCALE N.T.S.	PHASE 1
BUILDING ID A	JOB NUMBER 0816-Q118965	SHEET NUMBER E4	ISSUE 0

SPLICE BOLT TABLE							
Mark	Qty Top	Washer	Bot	Int	Type	Dia	Length
SP-1	4	4	4	0	A325	3/4"	2 1/4"
SP-2	4	4	4	0	A325	3/4"	2"

FLANGE BRACES: BOTH SIDES(UNLESS NOTED)
FBxxA(1): xx=length(in)
A - L2X2X14G

USE (1) HARDENED
WASHER PER EACH
5/8"Ø BOLTS A325 AND UP.
TYP.UNLESS NOTED

MEMBER TABLE							
Mark	Web Depth		Web Plate		Outside Flange		Inside Flange
	Start/End	Thick	Length	W x Thk x Length	W x Thk x Length	W x Thk x Length	
RF1-1	10.0/12.0	0.134	124.0	5 x 1/4" x 135.8		5 x 1/4" x 124.0	
	12.0/11.0	0.250	12.7	6 x 1/4" x 19.5			
RF1-2	9.0/ 9.0	0.134	219.9	5 x 1/4" x 219.9		5 x 1/4" x 219.1	



GENERAL NOTES:

- ALL BOLTED JOINTS WITH A325M-09 TYPE 1 BOLTS GREATER THAN 1/2" DIAMETER ARE SPECIFIED AS PRETENSIONED JOINTS IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004". PRETENSIONING CAN BE ACCOMPLISHED BY USING THE TURN-OF-NUT METHOD OR TIGHTENING, CALIBRATED WRENCH, TWIST OFF TYPE TENSION CONTROL BOLTS OR DIRECT TENSION INDICATOR AS ACCEPTABLE TO THE INSPECTING AGENCY AND BUILDING OFFICIAL. INSTALLATION INSPECTION REQUIREMENTS FOR PRE-TENSIONED JOINTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.2) USING TURN-OF-NUT METHOD IS SUGGESTED. THE CONNECTIONS ON THIS PROJECT ARE NOT SLIP CRITICAL.
- ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.
- INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN

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0	12/12/12	FOR ERECTOR INSTALLATION	ASF	SG	CAD

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LITTLETON, CO 80127-4208

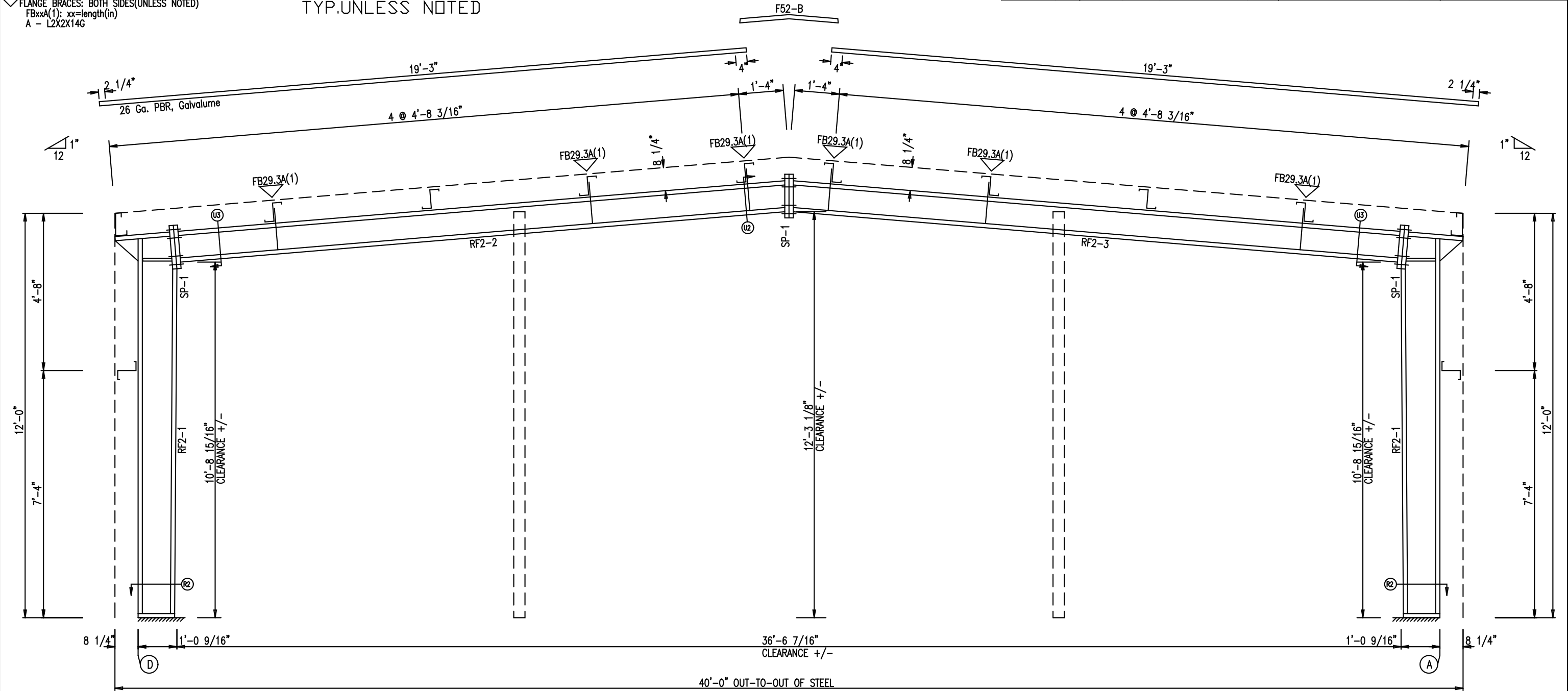
PROJECT: CREW CONSTRUCTION							
CUSTOMER: CREW CONSTRUCTION				OWNER: CHUCK CREW			
LOCATION: HINKLEY, CA 92347							
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	12/12/12	N.T.S.	1	A	0816-Q118965	E6	0

SPLICE BOLT TABLE							
Mark	Qty Top	Washer	Bot	Int	Type	Dia	Length
SP-1	4	4	4	0	A325	3/4"	2"

FLANGE BRACES: BOTH SIDES(UNLESS NOTED)
 FBxxA(1): xx=length(in)
 A - L2X2X14G

USE (1) HARDENED WASHER PER EACH 5/8"Ø BOLTS A325 AND UP. TYP.UNLESS NOTED

MEMBER TABLE							
Mark	Web Depth		Web Plate		Outside Flange		Inside Flange
	Start/End		Thick	Length	W x Thk x Length		W x Thk x Length
RF2-1	10.0/12.0		0.134	136.7	5 x 1/4" x 135.8		5 x 1/4" x 125.0
RF2-2	8.0/ 8.0		0.134	220.1	5 x 1/4" x 19.6		
RF2-3	8.0/ 8.0		0.134	220.1	5 x 1/4" x 220.1		5 x 1/4" x 219.4
					5 x 1/4" x 220.1		5 x 1/4" x 219.4



RIGID FRAME ELEVATION: FRAME LINE 1

GENERAL NOTES:

- ALL BOLTED JOINTS WITH A325M-09 TYPE 1 BOLTS GREATER THAN 1/2" DIAMETER ARE SPECIFIED AS PRETENSIONED JOINTS IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004". PRETENSIONING CAN BE ACCOMPLISHED BY USING THE TURN-OF-NUT METHOD OF TIGHTENING, CALIBRATED WRENCH, TWIST OFF TYPE TENSION CONTROL BOLTS OR DIRECT TENSION INDICATOR AS ACCEPTABLE TO THE INSPECTING AGENCY AND BUILDING OFFICIAL. INSTALLATION INSPECTION REQUIREMENTS FOR PRE-TENSIONED JOINTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.2) USING TURN-OF-NUT METHOD IS SUGGESTED. THE CONNECTIONS ON THIS PROJECT ARE NOT SLIP CRITICAL.
- ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.
- INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN

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 BUILDER SERVICES GROUP 10639 W BRADFORD RD
 LITTLETON, CO 80127-4208

PROJECT: CREW CONSTRUCTION		OWNER: CHUCK CREW	
CUSTOMER: CREW CONSTRUCTION			
LOCATION: HINKLEY, CA 92347			
CAD	DATE 12/12/12	SCALE N.T.S.	PHASE 1
BUILDING ID A	JOB NUMBER 0816-Q118965	SHEET NUMBER E7	ISSUE 0

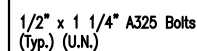


Diagram illustrating the connection details for a rigid frame rafter. The diagram shows a cross-section of the roof structure, including the roof purlin, the rigid frame rafter, and the rafter flange brace. The connection is secured using $(2) \frac{1}{2}'' \phi \times 1 \frac{1}{4}''$ A325 bolts. The diagram also indicates the location of the roof purlin, the rigid frame rafter, and the rafter flange brace. The connection is labeled as "END OF BUILDING".

EW Rafter

EW Column

(4) 5/8" x 1 1/2"
A325 Bolts (Typ.
U.N. on Endwall
Drawing)

x 1 1/2" A325 Bolts

The diagram illustrates the connection of a rigid frame rafter to two different column types. On the left, a 'C' column is shown with a rigid frame rafter connected to its top flange using a connection plate. On the right, an end wall column is shown with a rigid frame rafter connected to its top flange using a connection plate. The connection plates are shown with bolts securing them to the columns and the rafter.

A technical diagram of the SC-484 clip assembly. The diagram shows a cross-section of a structure with a vertical 'SIDEWALL GIRT' and a horizontal 'ENDWALL GIRT'. A 'RIGID FRAME COLUMN' is attached to the side wall girt. The 'CLIP SC-484' is shown as a rectangular component with four circular holes, mounted on the end wall girt. Dashed lines indicate the internal structure and the path of the clip.

A 3D perspective diagram of a door jamb. It shows a vertical rectangular frame. The top horizontal part is labeled "Door Jamb". The vertical part on the left is labeled "Side Rail or End Rail". The diagram illustrates the components of a door frame assembly.

Diagram illustrating the connection of an EW Rafter to a vertical member. The diagram shows a side view of a truss structure with a vertical member and a horizontal member. A section line "A-A" is indicated. A detail view of the connection is shown, labeled "SECTION 'A'". The detail view shows a vertical member with a horizontal member attached. The horizontal member is labeled "EW Rafter". The vertical member is labeled "Width as Required". The detail view shows a cross-section of the vertical member with a horizontal member attached. The horizontal member is labeled "EW Rafter". The vertical member is labeled "Width as Required".

Diagram illustrating the connection of a roof purlin to an RF rafter using a flange brace and flange brace clip. The diagram shows the roof purlin, the RF rafter, and the flange brace. The flange brace is connected to the RF rafter using a flange brace clip. The diagram also shows an additional flange brace (as required) connected to the roof purlin.

1/2" x 1 1/4" A325 Bolts
(Typ.) (U.N.)

Diagram illustrating the connection of an RF Column to a Wall Girt using Flange Braces and Clips.

- RF Column
- Flange Brace Clip
- Flange Brace (As Required)
- Additional Flange Brace (As Required)
- Wall Girt

1/2" x 1 1/4" A325 Bolts
(Typ.) (U.N.)

Technical drawings of a roof eave assembly. The left drawing is a side elevation showing an 'Eave Strut' supported by an 'EW Rafter' and a 'Steel Line' with a 1/4 inch gap. The right drawing is a perspective view showing the 'Eave Strut' and 'Endwall Rafter' connected by bolts.

1/2" x 1 1/4" A325 Bolts
(Typ.) (U.N.)

The diagram shows a cross-section of a rigid frame column supporting an eave strut. The eave strut is connected to the column using a gusset plate with multiple bolts. Labels include 'Eave Strut' pointing to the horizontal member and 'Rigid Frame Column' pointing to the vertical member.

1/2" x 1 1/4" A325 Bolts
(Typ.) (U.N.)

The diagram shows a 3D perspective view of a structural connection. A horizontal 'Eave Strut' is shown being attached to a vertical 'Rigid Frame Column'. The connection is made using a plate with four bolts. A dashed line indicates the path of the bolt through the column and the plate. A smaller inset shows a side view of the connection, highlighting the bolted joint.

1/2" x 1 1/4" A325 Bolts
(Typ.) (U.N.)

(J24) EAVE STRUT TO RIGID FRAME

[illegible]

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PROJECT:	CREW CONSTRUCTION
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OWNER:	CHUCK CREW
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LOCATION:	HINKLEY, CA 92347
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CAD

DATE _____

SCALE

PHASE

BUILDING ID

JOB NUMBER

SHEET NUMBER

ISSUE

12/12/12

12/12/12

N.T.S.

1

A

0816-Q118965

DET1

0

L8 DOOR JAMB TO WALL GIRT

M3 DOOR HEADER TO DOOR JAMB

R2 ANCHOR BOLTS AT SIDEWALL COLUMNS

T1 SECTION THRU WALL PANEL AND CONCRETE FOUNDATION

TRIM_309

TRIM_317

TRIM_186

TRIM_303

TRIM_319

TRIM_316

U2 BOLTS FOR RIGID FRAME RAFTER AT BUILDING PEAK

U3 BOLTS FOR RIGID FRAME RAFTER TO COLUMN CONNECTION

Q2 DIAGONAL CABLE, EYEBOLT END

CABLE AT FLUSH WALL GIRT

Standard Grade

Description	Fastener Number	Application
1/4"-14 x 7/8"	4A	Stitch & Trim Screw
12-14 x 1 1/4"	17A	Member Screw
12-14 x 1 1/2"	17B	Member Screw
12-14 x 2"	28	Member Screw

Long Life

Description	Fastener Number	Application
1/4"-14 x 7/8"	4	Stitch & Trim Screw
12-14 x 1 1/4"	3	Member Screw
12-14 x 1 1/2"	3A	Member Screw
12-14 x 2"	58	Member Screw

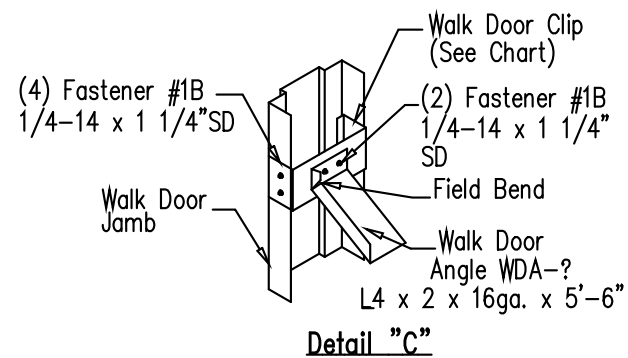
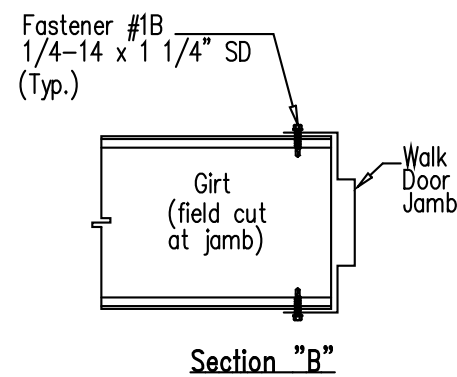
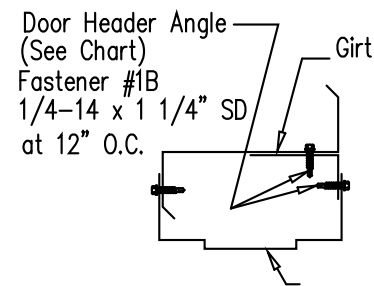
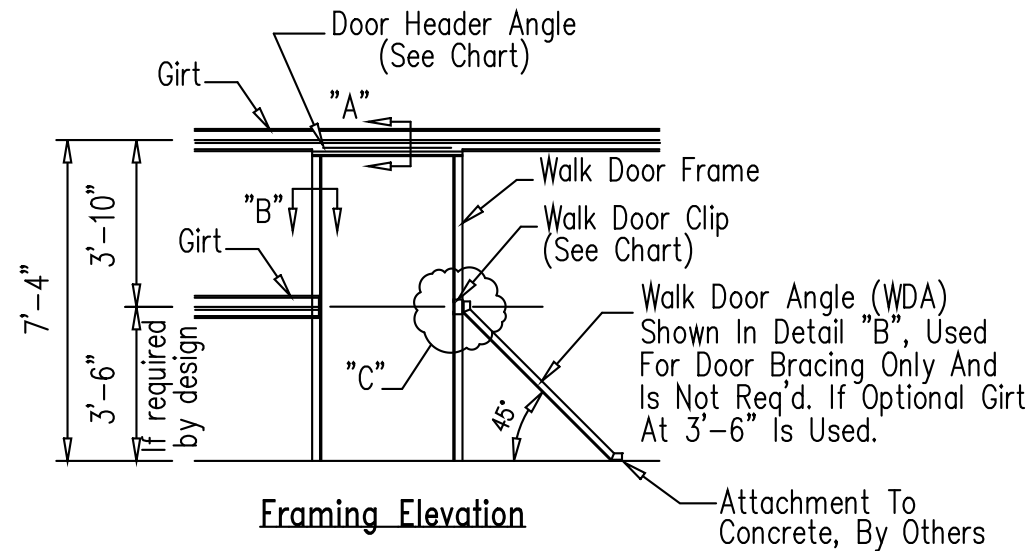
Note: Standard details call for 1 1/4" fasteners as member screws by default. Member screws may be 1 1/4", 1 1/2", or 2" depending on insulation, application, or customer request.

Self-Drilling Screw Application
SCRW1

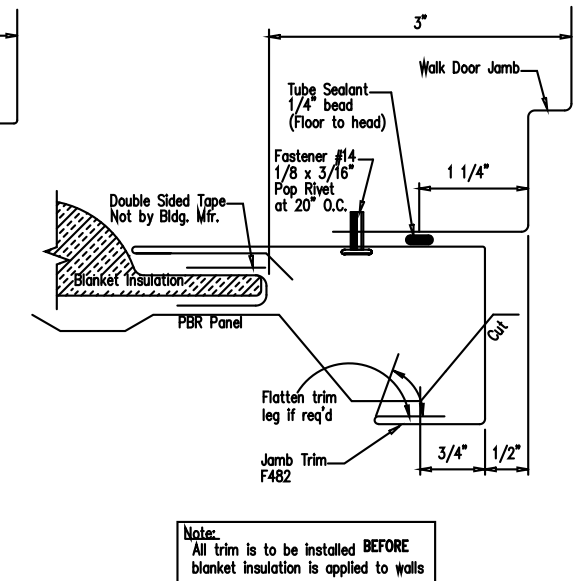
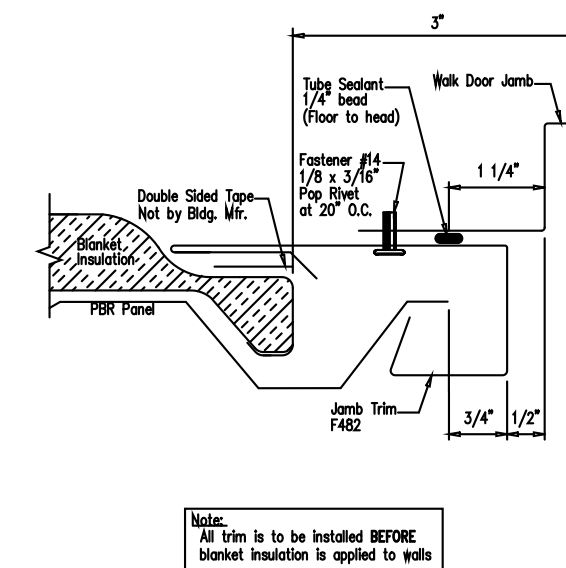
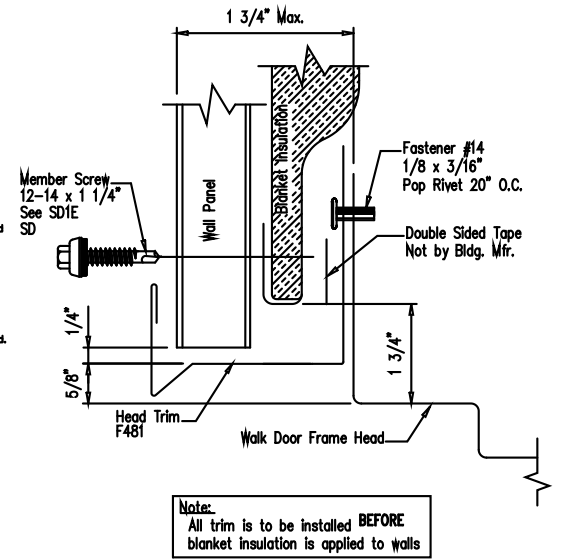
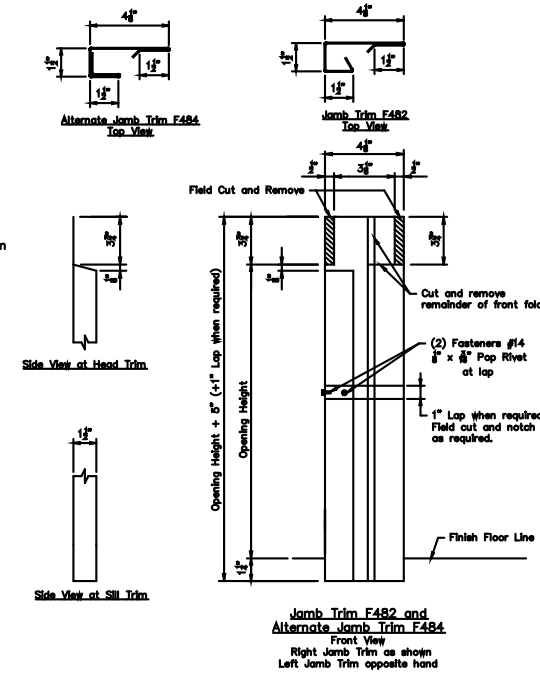
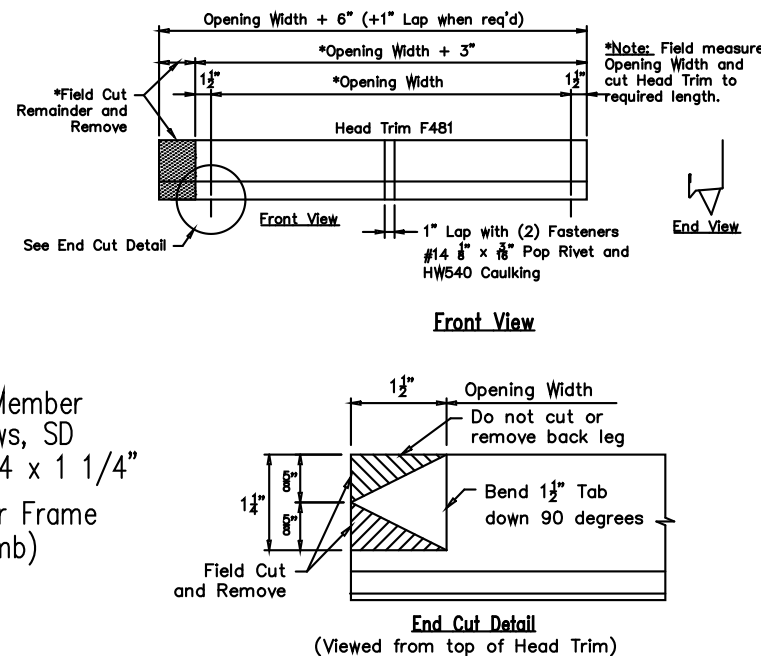
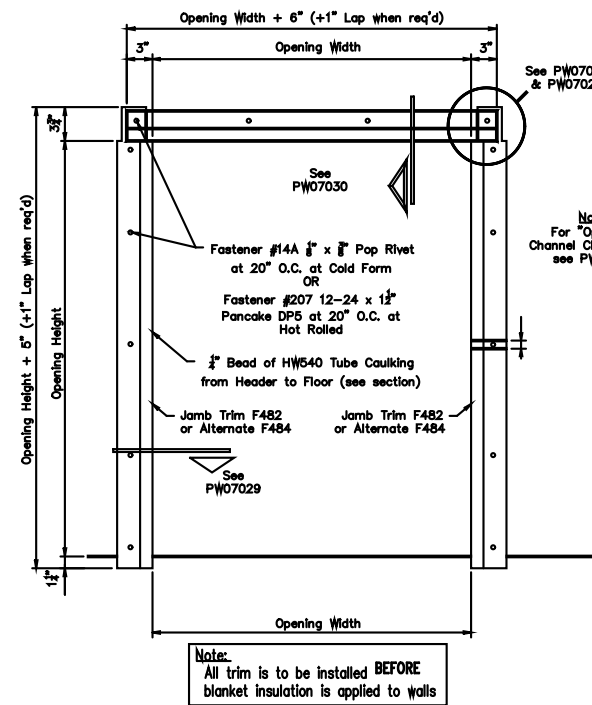
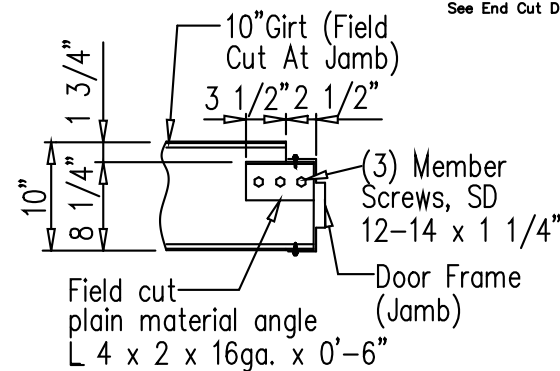
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	12/12/12	N.T.S.	1	A	0816-Q118965	DET2	0



Used for door bracing ONLY and is not required if optional girt at 3'-6" is used. (Typ. both jambs)



Door Header Angle	
Piece Mark	For Door
DHA3-?	3070
DHA4-?	4070
DHA6-?	6070

Walk Door Clip	
Girt	Clip
8"	WDC8-?
10"	WDC10-?
12"	WDC12-?

